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PART of THE STATE of
CHIAPAS
MEXICO
Traversed By T.U.X. 1925
Scale 1:1,000,000
TABASCO
Tepetitlan
Rio Macuspana
Tortuguero
Zopo Cave
Salto
Iowa
Retiro
Montecristo
Rio Usumacinta
Rio Chacamas
Palenque
Huchumachital
Chuctiepa
Tila
Tumbala
Yajalon
Chilon
Bachajon
Simojovel
Citala
Ococingo
Guaquitepec
Encanto
Ubala
Canpomtik
Tonina
Santoton
Zona Sala
Xupa
Yoxiha
Muxculha
Jolja
La Reforma
Tenosique
Sta. Margarita
Piedras Negras
GUATEMALA
Rio Usumacinta
Rio Lacanja
Yaxchilan
El Real
Tecoja
Cololte
Chacalchib
Tenango
Cancuc
Oschuc
Tenejapa
Huistan
Chenalho
Chamula
Zinacatan
S. Cristobal
Aqua Escondida
CHIAPAS
Teopisca
Amantenango
Tzendales
Rio Jatate
S. Bartolome
S. Francisco
Hun Chabin
Comitan
Rio Grande or Chiapas
Tenam
Zoluta
Tepancuapan
Chinkultic
Sacchana
Gracias a Dios
Chacula
La Concordia
Nenton
S. Mateo Ixtatan
S. Marco
Jacaltenango
Chicomucelo
Todos Santos
Chiantla
Zaculeo
Huehuetenango
GUATEMALA
Tapachula
Pacific Ocean
30'
17
30'
16
30'
15
92
30'
91

Chapter XI

PINES

Our trail wound through low bush and second growth. Here and there on hills were islands of high forest, but the level ground formerly under cultivation was now covered with an impenetrable network of low bushes and thorny brambles.

Indian agriculture is very simple. Towards the end of the dry season the Indian selects a place in the forest for his corn field, and makes an extensive clearing. All trees and branches are cut in small pieces, and left to dry in the baking sun. When thoroughly dry they set fire to them, and in a short while the ground is clear, leaving it as clean as a floor.

Then the Indian plants his corn in holes made with a wooden digging stick. He sows just before the rainy season sets in and waters his field, and thereafter he has nothing to do until it is time to harvest. The ground is never broken, and no fertilizer is used.

This method is very wasteful. Three to four plantings can be made in the same clearing, after which the soil is burnt out and exhausted. Then a new place must be found for the field.

In this way great tracts gradually become waste land. Today the population is scarce, and the damage is therefore comparatively small; but before the Conquest the population must have been much greater, judging by the many and large ruined cities. In those days the Maya undoubtedly first cultivated the lands near his town, and as the soil became exhausted, moved farther away. Then one fine day the distance from field to town became so great, the labour of cultivating the distant field and transporting the crops so excessive, that he was forced to look for new country. Very likely the inhabitants of one city would invade the territory of a neighbouring city in their search for cultivable land and this would result in war.

Dates inscribed on monuments show us that the Maya for some reason abandoned the southern part of their country around the year 600 A. D. After 630 A. D., we find no more dates in this, the Old Empire area, as it has been called; but about the same time dated monuments appear in northern Yucatan.

A general exodus from the southern area must have started at this time, and little by little, tribe after tribe went north, leaving their magnificent cities to a few stragglers—eventually to be claimed

by the great forest. New cities, one after the other, sprang up in the new country. Several tribes stayed behind, but the leaders and chiefs must have gone north. The tribes still living in the southern area are descendants of those who remained.

Several explanations have been advanced for this migration, among which are disease, war, and change of climatic conditions. Probably there are many reasons for the exodus, of which the exhaustion of the soil is one of the principal.

The Maya could have gone south. There they would have found igneous mountains. We find Maya speaking tribes in the highlands of Guatemala, but rarely find great buildings in that area. To the north, on the peninsula of Yucatan, the migrants found a limestone country, much like that which they had left. Limestone played a principal role in their whole culture. Lime was necessary for making their principal food, the corn cake (now called tortilla by the Spaniards). Limestone was easy to cut and carve with stone tools, and burnt lime was essential in their temple building. Moreover, the agricultural conditions were similar to those to which they were accustomed. Therefore, after two centuries of moving around, searching for a suitable place, they settled in Yucatan. There they built more great cities, and blossomed out in a magnificent renaissance, finally to reach the climax and then came the downfall of their entire culture.

Now and then we met a few Indians, but only when we reached the high points of the trail did we see their houses in places of vantage on the hills, away from the trail, so that the inhabitants could look out for strangers.

Reaching a steep climb, we dismounted and drove our animals along, urging them with Indian cries. The pack animals laboured under their burden, frequently stopping to get their wind, then driven forward again by the yells and whistling of the boys.

The trail went straight over the ridge, from the top of which we had a magnificent view of the valley of the Bachilá and Bolontichná rivers. Below we heard the roar of the rivers, and in front lay the nearly vertical wall of the southern side of the valley, an enormous geological fault. Along the backbone of a long narrow ridge we could see our trail winding up to the edge of the wall miles ahead. Nowhere in the huge valley at our feet did we see big forest; all was second growth and patches of grass.

Shortly after noon we had crossed the two rivers, and continued the gradual climb towards the southern rim. As we ascended we

saw houses and fields, lying away from the trail, and at a bend before us in the distance a perpendicular wall of yellow and red rock, about 400 meters high, framed in green foliage. A vertical, shining white band, the waterfall "Chegua," cut the center of the red cliff.

Toward evening we made camp by a small stream not far below the rim of the valley, 980 meters above sea level, and rolled ourselves in our blankets just as a downpour started to drum on our tent-fly.

Early in the morning a few Bachajon Indians came stealthily out of the bush to look at our strange outfit. They talked with our Indian carriers, and evidently found out that we were not bad people, as they soon came near to our camp to talk with us.

FIG. 195—Bachajon, Chis. Pine Forest.

It was a cool morning and the bottom of the valley was hidden under great soft banks of white mists with the mountains appearing above in sharp silhouette against the morning sky. Soon we reached the rim of the valley and looking back towards the north, saw the many mountain ranges we had crossed and also the Don Juan mountain along the foot of which we rode towards Palenque.

The vegetation changed to low oak-like bush over ground covered with fern-like moss and pretty wild iris. As we rode downward to the next valley new mountain ranges appeared before us and we could see the pine country at a distance. There is no transition from tropical vegetation to pine forest. Change in soil is

probably the reason for change in vegetation. The tropical forest grows on black humus soil and the pine country is underlain by a red sandstone which weathers into a heavy red clay. The contact of this sandstone with the limestone country on which leaf trees grow lies about an hour's ride north of the village of Bachajon.

The pine country is very hilly, the trees are scattered over a carpet of vivid green grass cut by the strong red line of the soil of the trail like a scar (fig. 195).

It was like riding through a magnificent park, up and down the hills and across small streams. Our poor animals had a hard time on the slippery trail. La Farge's horse gave out, and he had to change his saddle to a spare animal.

The Bachajon Indian village came in sight, lying on a hill in the middle of the valley. It was well after noon when we reached the dilapidated, grass-roofed and mud-walled huts clustered around the huge ruin of an old Spanish stone church. The Indians use a new church which they have built of the same material as their houses.

The house of the Government agent lies in the middle of the village and here we were quartered in a room, the floor of which had just been covered with a carpet of fresh pine needles.

The Bachajon Indians are reputed to be unfriendly to all travellers, so we were not surprised when the Indian chief of the village told us that he could not furnish fodder for our animals or men to carry some of our cargo. To all our questions he answered "Mayuk," or in English, "Ain't got none." But when the chief, a little later, heard from our Encanto men that we had been friendly to them, and that furthermore, we were friends of the big father President in Mexico City, he changed his attitude.

The Government agent is sent to the Indian village by the civil authorities of the neighbouring Mexican town of Ocosingo. He is supposed to collect certain taxes, raise labourers for public works in the Mexican town, and help the Indians with their affairs. He is highly unpopular among the Indians, who counteract his orders through a remarkable system of passive resistance. They say "yes" to everything and do nothing. The only reason the Indians tolerate him is because he keeps a small store and sells liquor. The Indian is very fond of sugar-cane rum, and every Saturday and Sunday all the villagers generally get drunk. The agent complained bitterly that the Indians were not selling him any food supplies and was astonished when they sold us chickens and eggs.

Most of the Bachajon Indians live hidden away in the bush. Only the families of the chief and the village officials live around

the old church ruins. The chief and the officials all spoke Spanish, but the only one who knew how to read and write was the town secretary, a 15-year old boy.

After dark the Indians gathered in front of the municipal house and presently some of the elders made signs that they wanted to talk to us. We followed them into the dark out of earshot of the agent, where the Indians told us of all their sorrows and difficulties, asking if we could not help them. They said that the agent tried to raise unjust taxes, that they were forced to do much work for the Municipal President of Ocosingo and did not have time to look after their own corn fields, and also that they were molested by the managers of the neighbouring properties. They asked us to bring their complaints before the Central Government, which we have done.

From there our route followed the main trail, or Camino Real, between Chilon and Ocosingo. A few hours ride through pine forest brought us to the top of a pass from where we had a magnificent view over the Ocosingo Valley. We could see the Indian village of Sivacá, and the white walled, red tiled houses of the Mexican town Ocosingo, lying on a green carpet of extensive grazing land. Down over the mountain side we scrambled towards the valley bottom, and by noon the hoofs of our animals clattered against the cobbled stones of Ocosingo's streets.

OLAF

Chapter XII

THE OCOSINGO VALLEY

The name Ocosingo is Aztec, signifying the "Place of Pines," a name well chosen, for the valley is enclosed in pine-clad hills. When one stands at the southwestern end of the valley it stretches out in front like a huge natural stadium with the high San Martín mountain lying at the back. The northern and southern sides of the valley consist of two parallel rows of mountains, the inner rows being lower than the outer. The interior ranges slope towards the valley and turn nearly vertical cliff walls towards the very narrow valleys that separate them from the exterior mountains (fig. 196).

The interior ranges are broken up in many points, and this the Maya took advantage of, selecting the highest points for pyramids.

The floor of the valley is grass covered, with scattered groups of pine trees. Here and there lie ranches, mostly inhabited by Mexicans, called Ladinos here. The Ladino is, strictly speaking, a man of mixed Indian and Spanish blood, but the Indians use the term to indicate any Mexican or Spaniard who lives in a town or owns a larger ranch. With the name generally goes a certain amount of education, and the ability to read and write.

Ocosingo town now contains only about 500 inhabitants, living in whitewashed brick houses with red tiled roofs. In the center of the town is a Plaza, at one end of which lies the Palacio Municipal, and at the other end a huge Spanish Colonial church. In front of the church is the public fountain; the water and news supply of the town. All day long girls come here to fill large clay jugs with cool water, led down from the San Martín mountain through an underground canal.

Half of the Plaza is planted with trees, which surround a dilapidated music pavilion, without which no self-respecting Mexican village could exist.

The houses that face the Plaza all have colonnades where one may walk in the shade, and where families bring their rocking chairs in the evenings to sit and watch the crowds of as many as twenty-five men and women who walk around the pavilion, or to look at the horses and cows that feed on the grass growing exuberantly between the paving stones of the Plaza.

The Ocosingo Valley and many smaller valleys adjoining formerly supported large herds of cattle and had considerable trade.

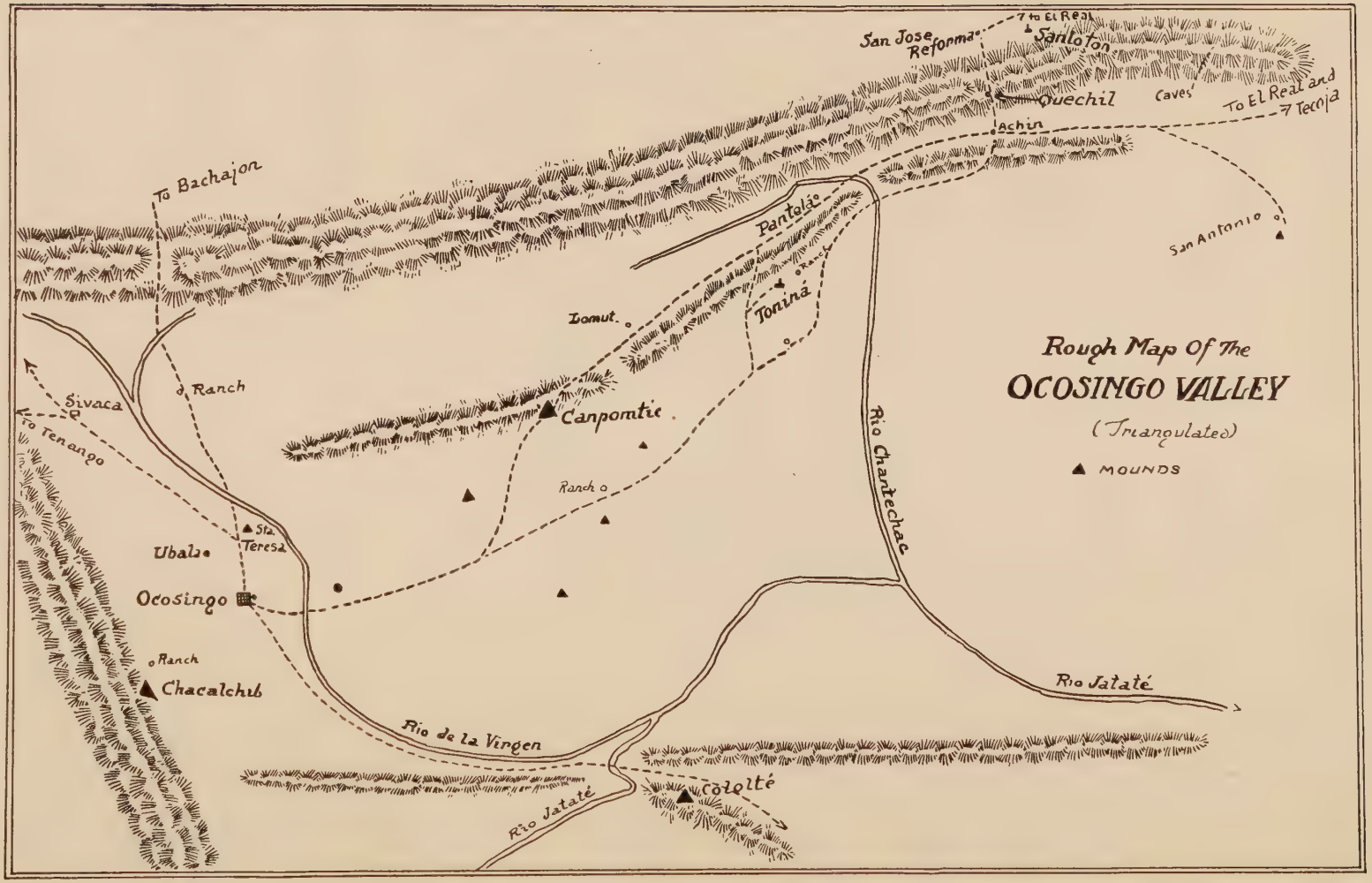


FIG. 196—Ocosingo Valley. (Triangulation). Scale 1:85,000.

Revolutions have since destroyed the herds, and the town now has only a small local trade in sugar and rum.

All goods are transported on mule-back over bad trails. Main trails run to Yajalon, San Cristóbal las Casas, and Comitan. Minor trails connect with Tenosique in Tabasco, a ride of five or six days through uninhabited forests. Other small trails lead into the heart of the forests along the Usumacinta river, where there are a few mahogany camps, fourteen days distance on a good mule.

The Spanish Conquerors had quickly discovered the richness of the soil and taken possession of it. Therefore, we find but a few Indians around Ocosingo, save at the small town of Sivacá, entirely inhabited by Tzeltal-speaking Indians. From there we secured our labourers, who were summoned by the municipal president and worked for us at the regulation pay of 50 centavos per day. Ocosingo holds sway over the native towns of Sivacá, Tenango, Oschuc, San Martín, and Bachajon. The municipality commands the Indians for all kinds of work, and in many ways lives on what can be pressed from them. As a consequence, the good people of Ocosingo are anything but popular among the Indians, though it appears that the man then in charge, Señor Simon Leon, was quite friendly towards them, and therefore well liked.

Geologically, the Ocosingo Valley is a syncline, the valley bottom and the interior mountain ranges being of a coarse red sandstone, and the exterior ranges of limestone. The axis of the valley runs approximately N-80-W to S-80-E, and Ocosingo town is located at an altitude of 900 meters above sea level.

As we rode into the village, La Farge discovered a stone block, carved with hieroglyphs, set in the pavement of the sidewalk, an excellent reception for archaeologists.

Our first concern was to find quarters, which we located in a house on the corner of a street leading into the Plaza. Soon our equipment was unloaded, and while we unpacked, the Ladino guide we had acquired in Bachajon went to his house to order food for us.

The restaurant and meal were a surprise, though not pleasant. In a room with a rotten board floor, the plaster falling off the walls, and a huge box full of saints, we were served fried eggs and black beans by an old woman with a large goitre. Though nothing in the house appeared to be either particularly exclusive or clean, the Ladino family seemed to resent that we sat down at the table with our chief guide, the trusty old Indian, Lázaro, now called "Tata" by us.

"Tata" means something like father, and the Indians use the word as a remark of respect to old men. Our old Lázaro had by now become a part of our outfit, always working, looking after the welfare of our animals and ourselves. We had come to regard him as a friend, and the name "Tata" grew out of nowhere, as the natural thing to call him.

Fig. 197—Toniná, Chis. Monument T-7.

The Municipal President was visited, and as soon as he saw our credentials, arranged for labourers to be furnished from Sivacá, and sent to the ruins of Toniná nearby, to clear the bush for our work. Then we drew the stone discovered by La Farge (see figs. 214-215).

During the evening we talked with many of the inhabitants, and were told of several more carved stones to be found in other parts

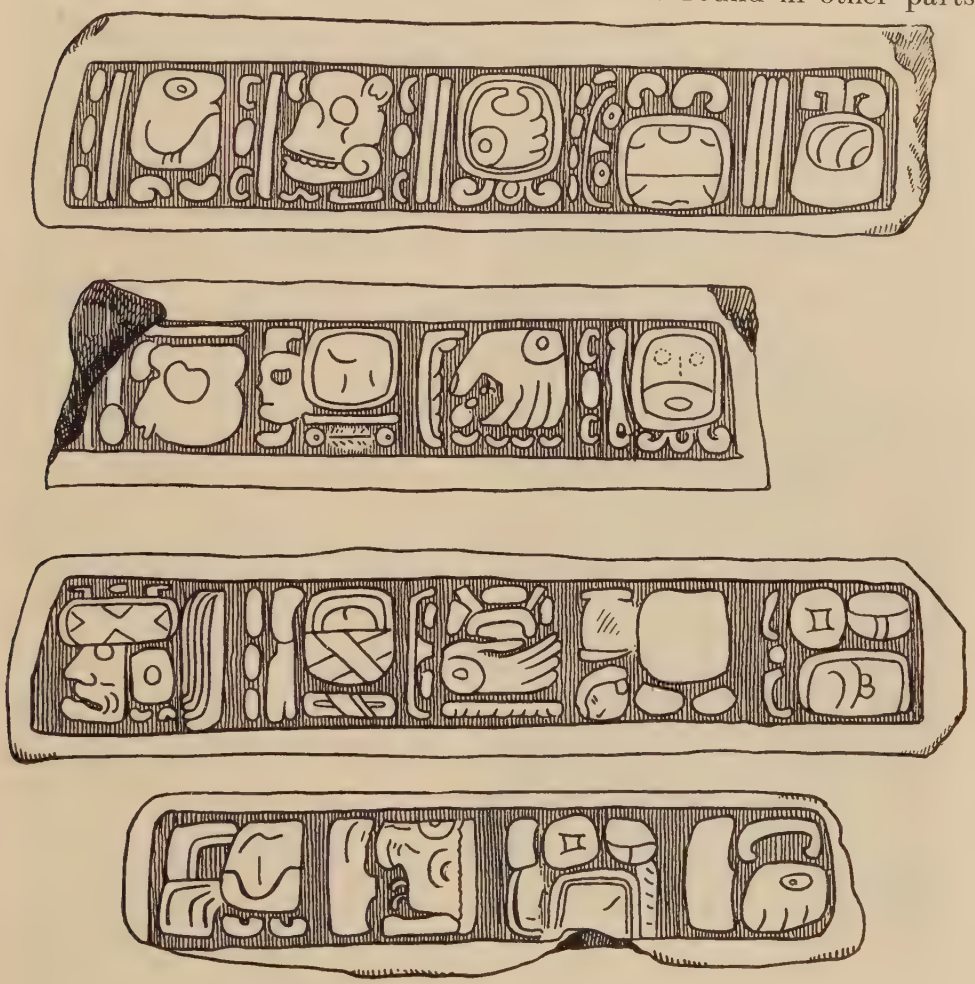


FIG. 198—Toniná, Chis. Drawing of Monument T-7.

of town. Previous Municipal Presidents had paved the streets with cut stones from the Toniná ruins. As a matter fact, it appears, that from the very founding of the Spanish town of Ocosingo, the inhabitants have occupied themselves mainly with hauling rocks from the ruins to the village.

Our search for carved monuments led us into strange places, and amusing situations. In the corner of a house belonging to the Ger-

man, Dr. Schmeling, was a stone with rows of hieroglyphs somewhat similar to the one first discovered. Behind the church, in a combination back yard and pig sty, we located three large stone figures, two of them with inscriptions. Then we heard of a stone said to be partly buried in the ground on an old site. When we arrived at this place, the owner of the lot appeared, very drunk, and insisted that we pay him $25.00 for permission to see and draw the stone. He was very noisy so we retired, and the next morning returned with an order from the municipal president giving us authority to do what we wanted to with the stone, as it was government property (see figs. 197-198). The laws of Mexico state that all ancient buildings and monuments belong to the nation. Monuments cannot be excavated or removed from the country without government permission. The Tulane Expedition had permits to explore, and due to these permits we received much help from all officials. All objects we discovered were drawn to scale and photographed, but nothing was removed.

FIG. 199—Ubala Ranch, Chis. Upper half of Monument T-8 with modern cross.

Outside the village there was said to be a large stone with carvings. La Farge went out in search of it led by our somewhat imbecile local guide. For some time they wandered around without finding anything, but finally the guide led him to what he said was another stone, a large square block with a circular hole in the center, in which was stuck a huge wooden cross (fig. 199). The stone had been dragged to its present position by our guide's family, and used as a base for the cross of his grandmother's grave. His family did not wish us to find the monument, as they feared we would excavate it; but our imbecile thought he had to produce something for his pay, so he took La Farge to the stone.

La Farge made a sketch of the principal inscription, which showed that it began with one of the so-called Initial Series, most

important in Maya Chronology. The writer went to draw the monument, but could not finish it the same afternoon as it began to get dark. The following morning the work was continued and we found that a part of the monument was missing. While working, the owner of the land arrived and told us that there was another stone nearby. This turned out to be the missing fragment, and when the two parts were placed together they carried the Initial Series date 9-12-10-0-0 9 Ahau 13 Zotz, or 422 A. D., after our reckoning.

This was an important discovery, and we persuaded the owner of the Ubala ranch, where we found the monument, to bring the two stones together. His intention was to use the lower part of the monument, which had a large hole in its centre, as a rim to a water tank.

We found a total of nine carved stones of different sizes in and around Ocosingo. All were of the typical yellow sandstone common to Toniná monuments, and there is little doubt but that they all come from these ruins.

Our stay in Ocosingo was very delightful. The children of the village eagerly hunted monuments for us, and our arrival made a boom in the local market. Usually the inhabitants spend their time passing a few pennies from one to the other. One day A makes bread and sells it to B, and the next day B sells bread to A. Now we added a few cents to the city capital.

On the day of Corpus Christi the women, with their heads wrapped in black shawls, went to church many times; the men did less work than usual; and the children played baseball on the Plaza. A quaint phraseology, a mixture of American baseball words and Spanish swearing, cheered the play.

While drawing one of the monuments behind the church, we heard an organ playing inside. Suddenly the music swung into some cheerful opera tune, later to return to serious religious music. We had the feeling that whoever was playing suddenly felt gay and happy and decided that the good people of Ocosingo did not know what the music was anyway, but thought anything coming from a church organ was religious, so why not be happy for a short moment?

Indians went back and forth over the Plaza, often filling the door of our room to watch the strangers. Ladinos would come to pay their respects and offer help, and both the Padre and the school teacher often came in for a chat. There was an extraordinary feeling of peace in the little town, a silence which became more notice-

able when broken by the clattering of horses hoofs against the paving stones.

From the Plaza one can see a great part of the valley and surrounding mountains. When the sun in the morning falls on the San Martín mountain, one's attention is attracted by a spur on this mountain which strongly resembles a pyramid. We asked about this and were told that it actually was an ancient mound. Therefore, one morning, we rode to the foot of the San Martín.

Reaching a small ranch, we left our horses behind and ascended on foot. A spur of the mountain had in ancient times been levelled and shaped to the form of an immense truncated pyramid, rising in terraces.

We had heard that there were caves in the mountainside, and that every year, on the 3rd of May, the Indians come here to worship the god of the mountain. Soon we reached a small cave, or rock shelter, and upon entering saw that a tunnel led into the dark. This we followed, with lighted candles, into a small cave, and there on the floor we found signs of a small altar.*

We took great pains not to disturb anything on the altar, returning to the mouth of the cave, and emerged into the glaring sunlight. We then climbed to the top of the pyramid, and found a large level area in the center of which stood a small mound. On top of the mound Indians had erected a wooden cross and at its foot we found bunches of pine needles, also remnants of burnt copal incense. Evidently this also was a place of Indian worship.

Sitting on top of the mound we had the whole Ocosingo valley at our feet. The red roofs of the town lay 500 meters below us. The top of the pyramid, called Chacalchib, is 1,440 meters above sea level. Far away we could see two other hilltops that likewise had been turned into pyramids. On the northern edge of the valley lay Campomtik, and further away on the same side we could distinguish the ruins of Toniná. On the southern side of the valley was the mountain-pyramid called Cololté. All these places were later visited.

The valley floor spread out before us. Here and there lay small ranches, and patches of pine forest. Several groups of mounds were easily distinguished, as those of Santa Teresa just outside Ocosingo on the trail to Bachajon. At the head of the valley lay Sivacá, the Indian village.

On the level top of the pyramid were rows of stones, indicating old house foundations, but though we made a careful search, we found no monuments.

*For Description, see Chapter XV.

Slowly we descended towards the valley, enjoying the magnificent view. The country we were to work in for the following weeks lay before us like a map. About half-way down we encountered another cave, in which we also found an Indian altar. This time the offerings were placed before a small cross, crudely made of wood.

La Farge, as usual, was busy collecting data on the Indians' life and customs, and while he paid a visit to the village Sivacá, the writer set out to explore the Cololté pyramid, sometimes called Hocuchupac, which was said to have a stone idol on it. We also heard that the good inhabitants of Ocosingo were afraid to go to the mountain top, not knowing what the Indians might do.

Fig. 200—Cololté, Chis. Altar on top of the Cololté Pyramid.

Our local guide was eventually persuaded to take me to the ranch of a Ladino boy, by name Cenón, on whose property the pyramid was located.

From Ocosingo we rode along the Rio Grande de la Virgen until it joined the Jataté River, which we crossed and soon came to the ranch of Cenón, who was in the field, but came out when we called. Though the pyramid, as stated, was on his property, he was not eager to take me to it, and when he finally agreed, he first armed himself with an old 30-30 Winchester.

Following long, narrow, pine ridges we approached the pyramid. It was beautiful country with scattered pine and grass below.

Finally we reached the foot of a steep hill, on top of which the idol was supposed to be. This hill sloped gradually towards the north and the valley. Its southern side was a vertical cliff wall. It was difficult to climb to the top as the ground was slippery underfoot from its carpet of pine needles, but it was well worth the trouble. We reached the top, and there before us stood a small altar, built of rough stones (fig. 200). On the centre of the altar stood the idol, a small figure, 64 cm. high, carved out of yellow sandstone, and of the same type as those idols we had already seen, and knew to come from Toniná. The idol was badly weathered—only its sandaled feet were distinguishable. It was without a head, and had no carved hieroglyphs. Before it stood crude clay bowls in which were the charred remains of copal incense; rows of crude candlesticks were planted between the stones; and offerings of coloured strips of paper and small bunches of pine needles lay scattered around.

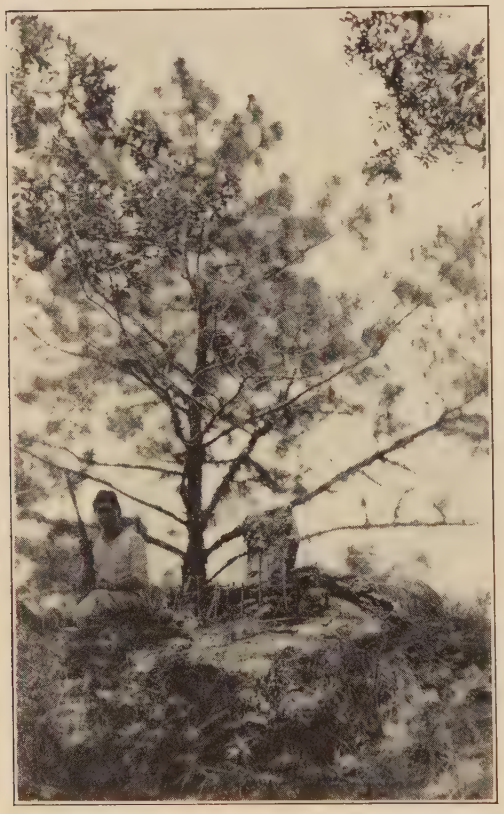


Fig. 200—Cololté, Chis. Altar on top of the Cololté Pyramid.

Four hundred years of Spanish rule, four hundred of Catholic missionizing, had not been able to stamp out the worship of the ancient gods in the ancient way. Here I stood, the first white man to behold this altar, a white man with a deep interest in the ancient history of this country. I could not help feeling that the ancient gods were still living, and that I was nearer to the ancient times at that moment than I had ever been before. As I turned and saw just across the valley the mighty pyramids of Campomtik, and Toniná, the powerful city that once ruled over the valley, I realized that before me lay buried the ruins of a small State within the huge Maya area—a State born of Maya culture, using Maya hieroglyphs, speaking a Maya dialect, but at the same time expressing itself through its art in a way distinct from any other part of the Maya area.

We have divided Maya history in two groups, the Old Empire and the New Empire. Of the history of the New Empire we know a considerable amount, but our knowledge of the Old Empire history is scant. We know the area in which it flourished as a whole, like knowing Greece without being aware of Sparta, Athens, and Corinth. Here in front of me lay one of the first hints of the subdivisions of the Old Empire. Knowledge will advance, and soon we shall be able to tell about the rise and decline of states and cities, to revive the history of the foremost people of ancient America.

Nearly due north across the valley lies the Campomtik pyramid. La Farge visited it while we worked at Toniná. It, too, is a remodeled mountain top, and as it is covered with grass, it stands out sharply against the forest-clad hills. It consists of a series of terraces with a depression which has stone-faced terraces and floor. From the valley bottom the hill rises 280 meters, of which 105 meters (325 feet) have been terraced. Broken pottery is found in various places on the hillside, and on the top now stands two wooden crosses, set there by the Indians. The name Campomtik means "much yellow incense." Incense was burned on the hilltop until quite recently. At such times they burned great fires, and shot off many rockets bought in Ocosingo. Finally the celebrations got too fervent for the Catholic Father, and he had the Indians driven away by the town officials. Generally, though, the Padres let the Indians alone when they celebrate in honour of the ancient gods (fig. 201).

Outside Ocosingo, where the trail divides, one going to Bachajon, the other to Sivacá, lies a group of mounds called Santa Teresa. Rumors that Indains had buried church treasures here after an uprising, led the townspeople to make a large excavation. According to some people in Ocosingo, they found a small wooden sanctuary, and a beautiful clay bowl with a fish on its lid. This bowl later was bought by Seler.*

It is remarkable how persistent are rumors of buried treasures. Every Ladino expects to find "dinero," money, in any mound, and they are usually sadly disappointed. Also, most of these people believe that we find money, else why should we dedicate so much time to our explorations? We had a case where one man offered to go fifty-fifty with us if we would explore a mound on his lands. The whole mound at Santa Teresa has been dug through, and it is told in Ocosingo that the excavators found, not money, but a small wooden sanctuary with a saint inside. We hear every day, when among the Ladinos and Mexicans, stories of church bells of solid gold, and cocks that crow at midnight on top of the mounds.

*Seler, E., 1901. Fig. 279.

At last we had drawn all the carved stones in Ocosingo, so, preceded by a gang of Tzeltal-speaking Indians from Sivacá, we rode out to the ruins of Toniná. The road led through the centre of the valley, crossing the Rio Grande de la Virgen over a bridge which had recently been reconstructed after the rebels of the last revolution had destroyed it. We were riding through rolling grass-covered country with clusters of pine trees and small groups of mounds scattered here and there. The Campomtik pyramid stood out sharply against the surrounding dark pine forest. We turned off from the main trail to the north and soon came in sight of the ruins, which Stephens, eighty-five years before, had come over the same trail to visit. Several explorers had been before him, but none had

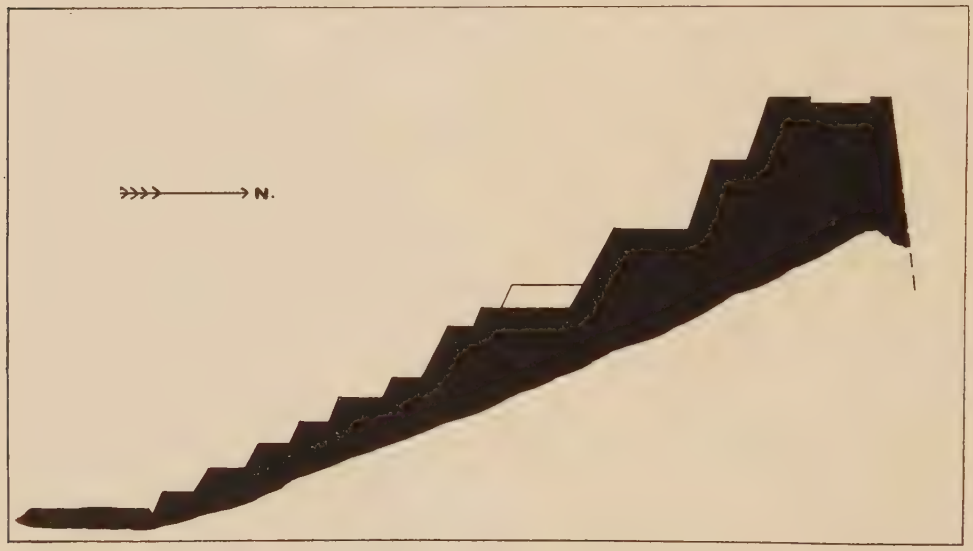


Fig. 201—Campomtik, Chis. Cross Section of Pyramid.

given such a vivid description of the ruined city we were now to explore.

Following the northern mountain range, we came to the Plaza at the foot of the ruins, and rode up to the first terrace as Stephens had done. There we tied our horses and proceeded on foot. Don Aureo Cruz, owner of the land on which the ruins lie, guided us through a part of the ruins that had never been recorded. We r hed the Temple of the Wooden Lintel, saw the "winged globe" rawn by Catherwood, then entered the sanctuary. Before us was the wooden lintel which has been lying over the door for nearly 1500 years, and which made Stephens marvel. Then and there we drank a small tumbler of the local cane wine in memory of John Lloyd Stephens and F. Catherwood, among the first to break the trails we

are now following in our search for the history of the ancient Maya.

After crossing a small stream, we rode up to the ranch of Don Aureo Cruz. The ranch consisted of a two-room, palm-thatched house with adobe walls, and a dilapidated hut which served as kitchen, across a small courtyard. We had spent our days and nights in so many strange places that we hardly noticed this, and the more time we spent with Don Aureo and his family, the better we liked it. One could not have found a more kind and courteous family. What they possessed was ours. Don Aureo kept watch over our workmen, and helped us in our investigations from early to late. His wife and daughters were constantly preparing special dishes and cakes for us.

While we were getting off our animals, we saw the extremely pretty eldest daughter of the house, a beauty of about 17 years with long black hair and fiery dark eyes, strewing the floor of the main room with fragrant, fresh pine needles. We were ushered into this room and were at once offered fresh milk and several handfuls of small clay idols by Don Aureo. In one corner of the room was a table and benches, in the opposite corner an altar to San Antonio of Toniná. A few days before our arrival a fiesta had been celebrated in honour of this saint, and the altar was still decorated with garlands of coloured paper, and a paper band with gilt letters saying "Viva San Antonio, 1925."

Our stay at Don Aureo's house will not soon be forgotten. The evenings we shall especially remember, when we sat outside the hut and listened to Don Aureo's tales of the Indians, while his pretty daughters were busy flirting with our guides, and with us too. A pine stick fire lit up the walls of the houses and flickered over the brown faces of our hosts and our Indian labourers, who sat just back of us, chatting in their own strange language and enjoying the local cigars we had given them. Out in the dark our animals could be heard grazing, and now and then a pig or a dog would approach the fire, to be driven away with shouts and sticks.

Chapter XIII

THE RUINS OF TONINÁ

The ruins of Toniná must have been known since the 17th century or about 150 years before the much larger ruins of Palenque were discovered. The first mention of the ruins of Toniná is in the Isagoge Historico Apologetico.* The writer of the Isagoge gives a description of these ruins after the text of Father Jacinto Garrido, who is said to have described them in his book, "Metheores de Aristoteles, question 10, duda 1."

As this reference has been overlooked by most writers, we give it in translation:

"Towards the east of the town of Ocosingo, at a distance of five or six leagues, on the side of a hill which, in that language, is called Aharicab, meaning "hand of the ruler (master, lord, god)" or "The lord of the hands," many and large buildings of great antiquity are to be seen, among which are eight great towers carved with a singular art. On their walls are sculptured many images of men in military dress; their heads covered with steel helmets (morriones) with plumes; the body completely dressed in armour to the thighs, and girded with bands; the feet clad in boots reaching to the middle of the leg. This dress is similar to the dress of the statues of Copán, except for the backs, which are girded in bands and not ribbons, like the others.

"On a great Plaza at the foot of that same hill there are also many other statues of stone very well carved; but in different dress, as they have on their heads something like crowns of hats which end in a point, but without any brim. The dress is in the style of a sack coat, which is square at the neck, with sleeves which reach to the middle of the arm and are attached to the lower part of the body so that it reaches the middle of the thigh. Around the waist are some ribbons with their *"hevillas"* (?) all sculptured most curiously in the stone itself. The feet are clad in boots which reach to the middle of the legs. Some statues hold their arms crossed on their breasts; others have them close to their breasts, though not crossed, and without any insignia. In the buildings are also found some shields of stone, hard as flint, which may have a diameter of about five *"quartas,"* more or less, all of a very even surface and highly polished, and around the edge of each is a border just like an old sexma (coin worth 4-5 reales), and all through this are many characters of various figures or ciphers which the P. R. do Fr. Jacinto Garrido says are Chaldean letters.

"Many of these shields and statues have been carried to the town of Ocosingo where I have seen them. The characters in the border of the shield looked to me more like ciphers of hieroglyphs relating to actions and happenings than like letters, because each of these figures is in a small cartouche (*cassita*) with its outlines distinct from any other, and each cartouche has too much work in it for it to be only one letter, and had they been only letters, not more than one word could have been written on each shield. On one of these shields there is carved in low relief a man of perfect stature, feet and hands tied together with one rope, so art-

*Isagoge Historico, 1892. Page 108 ff.

fully enclosed in the circle of that shield that within a diameter of one *"vara"* one can see all the limbs of a tall man in proper proportion. On this shield it seemed that they wanted to show that they had subdued some great prince or chief of some tribe of Indians, as the man is represented bound, naked, and with hair in the style of the Indians, and seems to have been subdued with violence."

The ancient name of the city seems to be Aharicab, "the Lord of the Hand," apparently indicating the name of the god who was chiefly worshipped there. This god is very likely to be Itzamna, chief god of the Maya, who in later days in Maya history was venerated in Itzamal, under the name of Itzamatul, or Kabul, the latter meaning the "strong hand."*

It is interesting to note that in several monuments, and also in the codices we find gods or priests carrying lances, at the point of which are hands. Also in Piedras Negras, we find the sign of a hand in the head-dress of several of the figures carved on the front of stone monuments, stelae 6 and 16.

In San Clemente, Petén, as well as several of the cities in Yucatan, are seen impressions of hands, either in red or black paint on the temple walls, and there are hands in the hieroglyphs, both of the manuscripts and carved monuments. These pictures of hands undoubtedly had some connection with the worship of Aharicab or Itzamatul. It is likely that further study of the sign of the hand will reveal it to be intimately associated with the father of the gods, the creator of man, who invented writing and books, and healed by the touch of his hand.

Juarros mentions the ruins of Toniná in 1823 and calls them Tulha, believing that they are the city referred to in the Traditions of the Empire of Votan, the great ruler of Chiapas.†

In 1808 the ruins were visited by Captain Dupaix, who made some drawings of both monuments and buildings, and states that the two structures lying at the top of the slope on which the ruins are situated are true pyramids. The drawings made by Dupaix were again published by Lord Kingsborough in his monumental work on Mexican Antiquities.‡

It is to the famous American explorer, John Lloyd Stephens, that we owe the best description of the ruins. He visited them during his famous journey from Guatemala to Yucatan in 1840, and gives a fascinating narrative of his investigation. He it is who first told about the wooden lintel over a door in the interior of one of the temples, the lintel that amazed him by being untouched by the wear of the centuries that have passed since it was placed where he found it.

*Cogolludo, 1867. Vol. I, Page 318.
†Juarros, D., 1823. Page 18-19.
‡Lenoir & Warden, 1834. Tome I, Text Page 23, 72-73. Tome II, Plates VIII-IX.—Lord Kingsborough, 1831 48. Vol. IV., Plates IX-X. Vol. V., Page 291-294. Dupaix text, French. Vol. VI., Page 470-472, Dupaix text, English.

Catherwood, who travelled in Stephens' party, and who made such excellent drawings of the ruins they visited, drew a stucco relief found over the doorway of the Temple of the Wooden Lintel. This

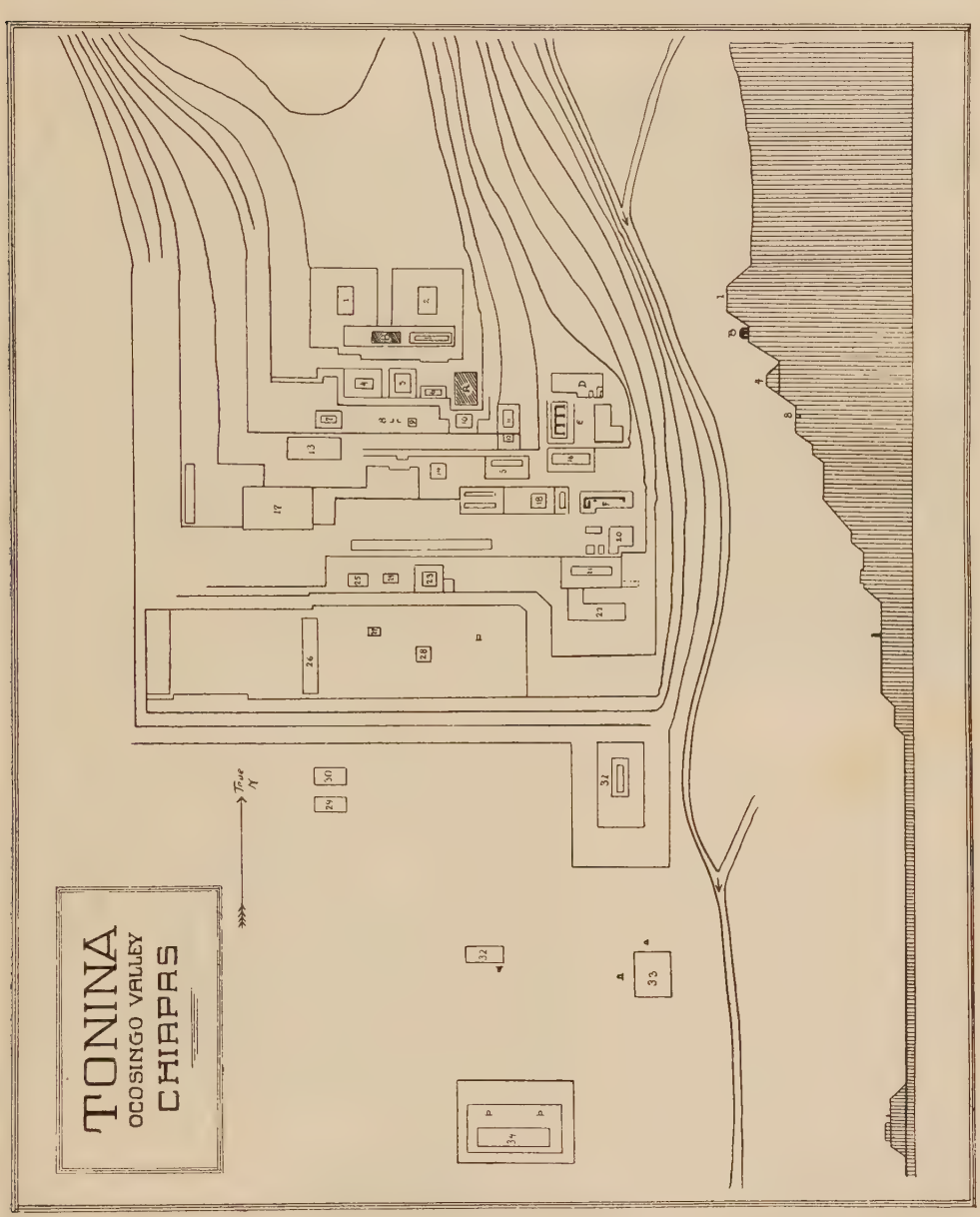


Fig. 202—Toniná, Chis. Plan and Section of Ruins. Scale 1:1,300.

relief was called a winged globe and led Stephens and many others after him to draw the conclusion that there was a cultural connection between the Egyptians and the Maya.* (See fig. 209).

*Stephens, 1841. Vol. II., Page 255-61.

Next to explore the ruins were Dr. and Mrs. Seler, who paid a short visit to the Ocosingo Valley just before the beginning of the present century. In their books they each gave a short description of the ruins, and pictured several monuments which they found in the town of Ocosingo.*

Fig. 203—Toniná, Chis. Southern Side of Mound 1.

In 1922 the writer spent a day at the ruins, and in 1925 the Tulane Expedition spent nearly a week exploring them.

The first description of the ruins mentions monuments from Toniná found in the town of Ocosingo, and in Father Garrido's narrative we hear of monuments and circular altars found both among the buildings of Toniná and on the large Plaza to the south of the ruins. Seler found several inscriptions, chiefly on the monuments he located in the town. It fell to the lot of the Tulane Expedition to locate a series of new hieroglyphic inscriptions

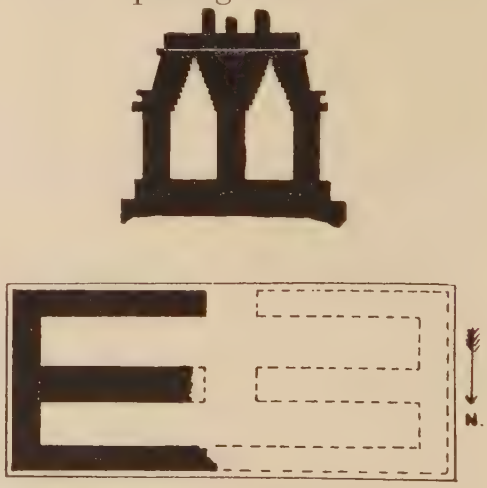


Fig. 204—Toniná, Chis. Plan and Section of House B. (Scale 1:200).

*Seler, C., 1900. Page 146. Second Edition, 1925, Page 122-24—Seler, E., 1901. Page 191-195.

on monuments both in the vicinity of Ocosingo, and in the ruins of Toniná.

On a spur of the mountain range that forms the northern side of the Ocosingo Valley, we find the ruins. Several mounds and a great Plaza lie on the level floor of the valley. The mountainside has been terraced, and on the terraces lie series of mounds and ruined buildings. The terraces rise in steps to the top of the hill, culminating in two large pyramids, from the top of which one has a magnificent view of the entire Ocosingo Valley (fig. 202). Behind these pyramids is a small Plaza and then a narrow ridge over which a trail leads along the top of the mountain range towards the pyramids of Campomtik.

Fig. 205—Toniná, Chis. East wall of House B, showing stucco plaster.

In describing the ruins, we shall begin with the two pyramids which have been numbered 1 and 2 on top of the hill (fig. 203).

Structures 1 and 2 are truncated pyramids, enclosed by retention walls. On their tops are no signs of buildings. Between them lies a narrow passage leading southward to the back of House B. This house was mapped by Dupaix. It is a small building containing two parallel chambers (fig. 204). Probably its door was towards the south. Only the eastern half of the building now stands (fig. 205), and on its end wall are large patches of stucco coating, which still show layers of red and blue paint (fig. 206).

To the east of House B lies a rectangular mound with no building on its top.

Below these structures is a terrace on which stands the mounds 4, 5, and 6. Of these, Mound 4 appears to have supported a building. On the eastern end of this same terrace we find the ruins of House A, the Temple of the Wooden Lintel (See Fig. 210). A comparison between the ground plan of this temple made by Catherwood, and the one made by the Tulane Expedition shows that a part of it has fallen since Stephens visited the ruins. One of the reasons for this recent destruction is undoubtedly the fact that one of the Municipal Presidents of Ocosingo ordered the inhabitants to bring stones for paving the streets of the village from the ruins.

Fig. 206—Toniná, Chis. House B seen from the West.

Looking at the ground plan of the temple, we note that the arrangement of rooms is very similar to that encountered in the Temples of the Sun, Cross, and Foliated Cross at Paneque. The building contains two parallel galleries, of which the inner encloses a small sanctuary. On the other hand, when we examine the cross section of the same building, we see that the roof of the sanctuary is one with the roof of the whole temple. In Palenque the sanctuary is a little house within the house. The first impression is that the sanctuary originally was a building itself, and that the rest of the temple was a later addition. We had no means of ascertaining this and must, therefore, limit ourselves to describing the building as we found it (figs. 207-208).

The door to the sanctuary, which was partly blocked with debris when Stephens visited the ruins, is now entirely covered by fallen stones. Treasure hunters have broken a hole in the back wall of the temple, through which we entered. The lintel described by Stephens lay in the same place where he found it, hard and dry, without worm holes, only damaged by casual visitors who have cut off chips as souvenirs. The beam is of the wood of the Chico Zapote tree, the same wood which we find in the beautifully carved lintels from the ruins of Tikal.

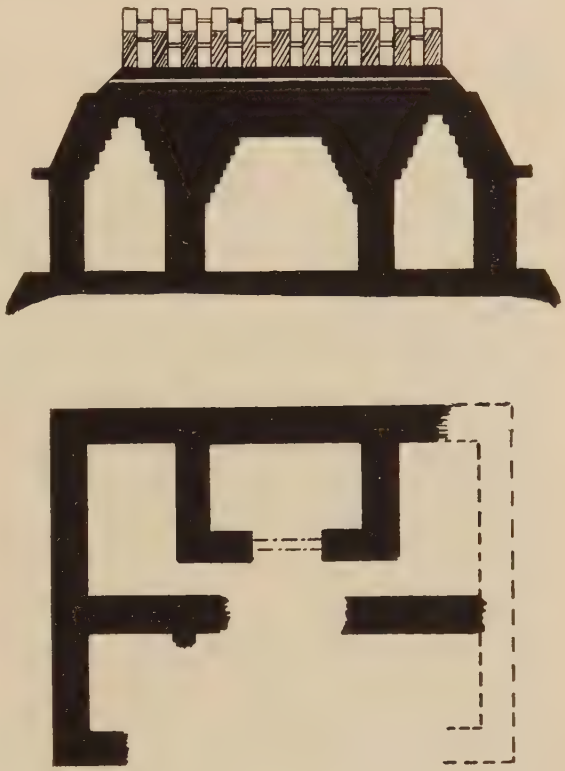


Fig. 207—Toniná, Chis. House A, Plan and Section. (Scale 1:200).

Stephens tells us that he found figures modeled in stucco and painted on the walls. These figures are there no more. Only in a few places are there fragments of stucco ornaments.

In front of the sanctuary is a narrow corridor, leading into rooms on either side of the holy of holies. The stucco figures which Stephens found in these rooms have now entirely disappeared, but on the roof slope of the sancwe can still trace the "winged globe" which Catherwood drew. La Farge made a new drawing of this ornament (fig. 209), and it is easily seen that it represents the wings of the *moan* bird, similar to the one found in Palenque over a doorway in House E, and to those which used to

adorn the roof slopes of the sanctuaries in the Temples of the Sun. Cross, and Foliated Cross.

The vaulted roof of the corridor is unusual. It is carried up fully on the western side. On the eastern side it is cut by the roof slope of the sanctuary. It is this feature that gives the impression that the Sanctuary was built before the rest of the structure.

Fig. 208—Toniná, Chis. Northwestern corner of House A. (Photograph by W. S. Atkins).

The front gallery was divided by short walls into two rooms, according to Stephens' drawing. We found that the entire southwestern side of the building had fallen down (fig. 210).

On the roof slopes there are indications of decoration in stucco low relief. The top of the roof was covered with vegetation and debris, but from the northern end of the building we were able to ascertain that a very elaborate roof comb construction once crowned the structure. It was found that the roof comb consisted of no less than seven parallel walls, of which the central one was the thickest. These walls were joined at intervals by stone slabs placed horizontally from wall to wall. Where the front of the roof had fallen down two differ-ferent levels of cement floors are visible in the interior of the solid mass (fig. 211).

Just to the north of House A, the side and back walls of a small building were found and named House C.

Some meters further down the side of the mound is another terrace on which lie the minor pyramids, 7, 9, 10, 11, 12. All these

are stone faced, and may have supported buildings of light material. No. 8 on the map is the location of a small underground passage,

FIG. 209—Toniná, Chis. Stucco serpent-bird over entrance to sanctuary, House A.

or perhaps, burial vault, at the mouth of which is found monument T-25, a kneeling figure with its arms crossed over its breast. This figure, like all others at Toniná, is headless—probably mutilated by early Spanish missionaries in their attempt to kill the ancient gods (fig. 212).

FIG. 210—Toniná, Chis. Front View of House A.

At the east end of the terrace already mentioned, at a somewhat lower level, is a small court enclosed by mounds and ruined buildings. House E shows the walls of a building with three rooms. These walls are thin and very little debris is found inside the rooms, indicating that the building probably was thatched with palm leaf or grass. To the north of House E is a large mound, D, in which we saw the remnants of a room and a narrow passage.

South of this group and structure is another court at a still lower

level, where House F is built into the side of a hill, having only one room preserved.

The mounds numbered 13 to 31 all belong to the structures on various terraces and levels on the hillside. They are stone-faced mounds of various sizes and may contain burial chambers.

On the large terrace, on which are Mounds 26-28, we found a plain stela standing erect, and a small stone figure somewhat similar to the already described T-25 at its feet.

A level Plaza extends to the south from the terraced hillside, on which mounds lie here and there, some of which are associated with stelae (fig. 213). By Mound 32 lies a plain stela, and west

Fig. 211—Toniná, Chis. North end of House A, showing roof comb.

of Mound 33 lies Monument T-20. This is a standing figure without head. The head of another figure was found just north of the same mound.

The last mound to be mentioned is No. 34. This faces north and carries the walls of a building now totally destroyed. In front are two small plain stelae.

Both the former and the present owner of the property on which the ruins are located had gathered many monuments into one place, just east of Mounds 29 and 30.

In the previous pages we have mentioned a series of monuments, probably all originally coming from the ruins of Toniná. Ancient records tell us that many had been taken from the ruins to Ocosingo, and for this reason we will list and describe all monuments together. They were numbered in the order in which we found and photographed them. The dates on the monuments were studied in the field, and after returning to New Orleans, Dr. S. G.

Fig. 212—Toniná, Chis. Monument T-25.

Morley of the Carnegie Institution, of Washington, who visited the Department of Middle American Research, kindly reviewed and emended our own readings.

All the monuments from the Ocosingo Valley are cut from a yellow, sandy limestone containing great quantities of formanifera. This kind of limestone does not appear to be found in the immediate vicinity of the ruins.

Fig. 213—Toniná, Chis. Group of Monuments lying on the Main Plaza.

LIST OF MONUMENTS FOUND IN THE OCOSINGO VALLEY AND AT TONINA RUINS.

T-1. Fragment of square stone block, with hieroglyphs on two sides. Length, 48 cm.; width, 28 cm.; thickness, 24 cm. Found in pavement in Avenida 6 de Agosto in front of the house of Esperanza Leon, Vda. de Sanchez, Ocosingo.

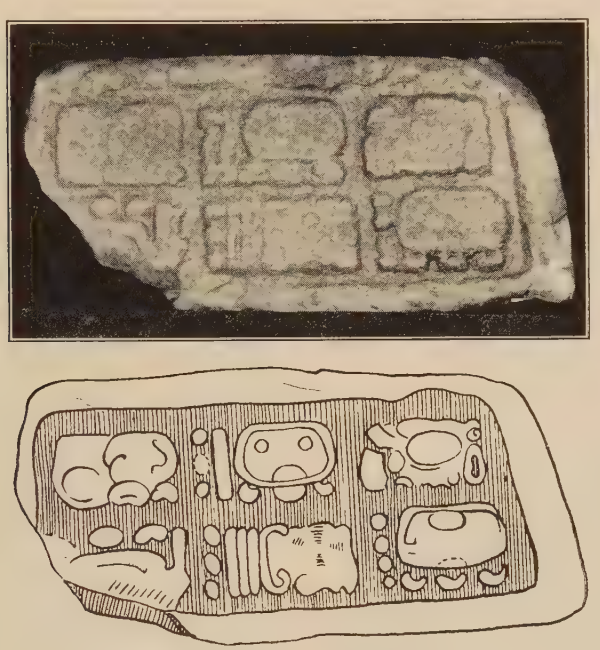


FIG. 214—Toniná, Chis. Monuments T-1, a.

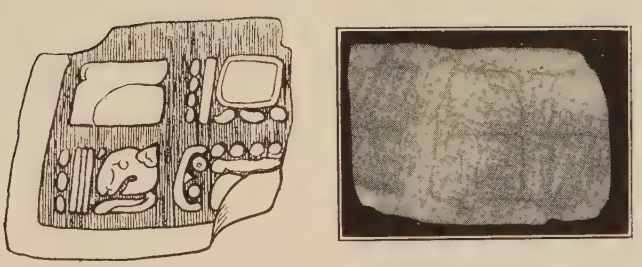


FIG. 215—Toniná, Chis. Monuments T-1, b.

Glyphs: (a). B-1 is 9 Ahau, B-2 has the coefficient 18, and C-2 the coefficient 4. (b). B-1 apparently 9 Ahau, A-2 is 18 Xul. Morley reads this as 9-15-15-0-0 9 Ahau 18 Xul (486 A. D.) (figs. 214-215).

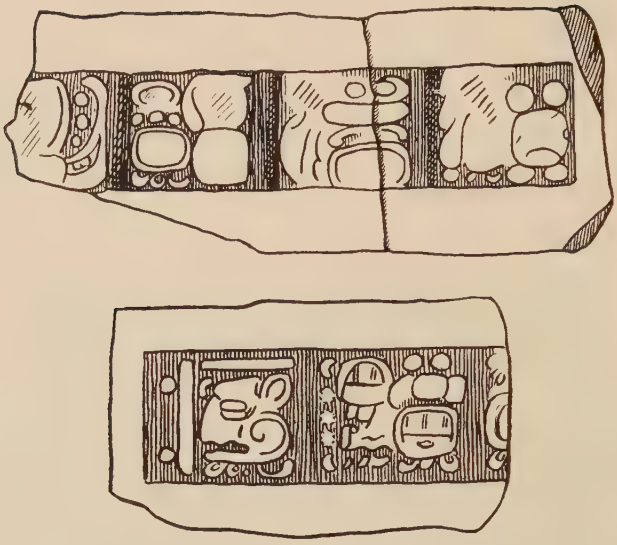


FIG. 216—Toniná, Chis. Drawing of Monument T-2.

FIG. 217—Toniná, Chis. Monument T-3, Back.

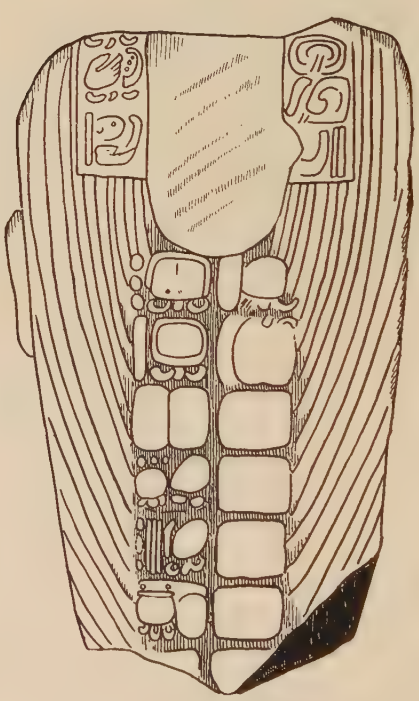


FIG. 218—Toniná, Chis. Drawing of Monument T-3.

T-2. Fragment similar to T-1, but not part of same stone. Length, 50 cm.; width, 30 cm.; thickness, 18 cm. Found set in corner of Dr. Von Schmelling's house, Ocosingo.

Glyphs: (a) Glyphs effaced. (b) Shows a secondary series of 2 Katun, 3 Tun, 5 Uinal and 7 Kin. (fig. 216).

T-3. Middle section of standing figure (head and feet missing). Front badly weathered, down the back of the figure hangs

Fig. 219—Toniná, Chis. Monument T-4.

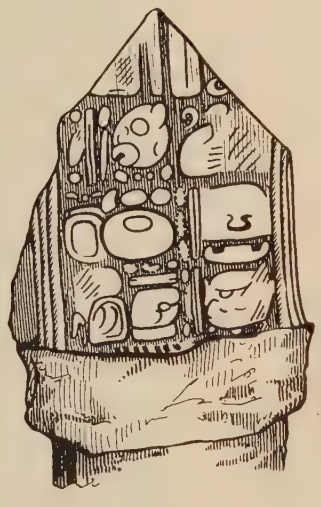


Fig. 220—Toniná, Chis. Drawing of Monument T-4.

a cloak on which are glyphs. High, 94 cm.; broad, 55 cm. Found on south side of church, in the yard of Frco. Burget, Ocosingo.

Two bands hanging down the back of the figure carry each a single row of glyphs which are weathered but appear to belong to a supplementary series. Between these bands is a rough surface where some carving has been destroyed. Below this is a double row of glyphs extending to the bottom of the monument. This band contains fourteen glyph blocks. No date (figs. 217-218).

T-4. Fragment of a stela consisting of a plug and the feet of a standing man. On the back is a double row of glyphs. High, 1.08 cm.; broad, 36 cm. Found in the yard of Frco. Burget, south of church, Ocosingo.

Glyphs are badly weathered (figs. 219-220).

FIG. 221—Toniná, Chis. Monument T-5, Front.

T-5. Standing figure on square base. Head missing, hands holding ceremonial bar over chest. Heavy girdle and apron, elaborate sandals. High, 1.54 cm.; broad, 62 cm. at base.

This stela has no glyphs on its back. It is carved in the full round, and looks more like a naturalistic statue than any other Maya monument that I know of (fig. 221).

T-6. Small fragment of a square stone block, with three glyphs. Long, 30 cm.; broad, 17 cm. Found in wall of unfinished house belonging to Sra. Josefa Navara, Ocosingo.

Glyphs probably belong to a secondary series, of 2 Katun, 9 Tun, 5 Uinal, 0 ? Kin, leading to a daysign with a coefficient of 4 (fig. 222).

T-7. Square stone block, with circular hole in centre and rough upper and lower surface. Must have served as base for a stela. Along all four sides is a single row of hieroglyphs. Long, 1.00 m.; broad, 78 cm.; thick, 21 cm. Found on lot belonging to Telesforo Luna. Was formerly used as door-step. Ocosingo.

Reproduced by E. Seler, 1904, p. 194, fig. 281; C. Seler, 1900, p. 119; 1925, p. 101.

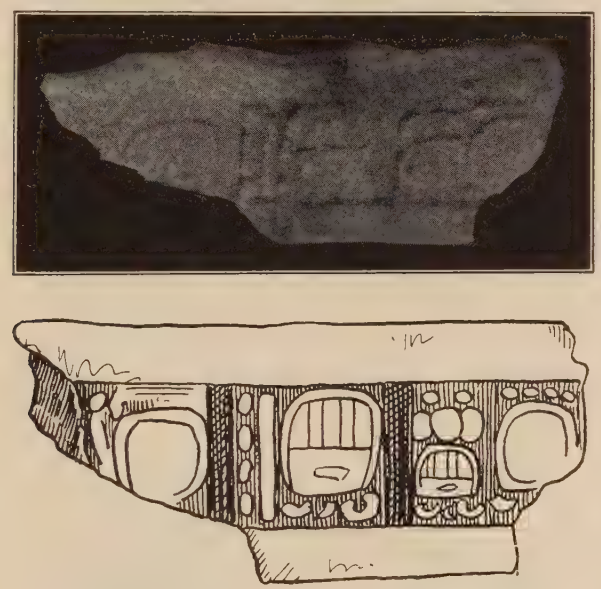


Fig. 222.—Toniná, Chis. Monument T-6.

Glyphs:

	1	2	3	4	5
A.	13 Kin	6 Uinal	11 Manik	End ?	15 Kankin
B.	?	?	Hand	1 Ahau	
C.	?	3 Zip	End Lahuntun	?	?
D.	?	?	?	?	

The reading of this is 9-16- 9-11- 7 11 Manik 15 Kankin
6-13 (A-1, A-2)

9-16-10- 0- 0 1 Ahau 3 Zip.
End of Lahuntun

See Figs. 197-198.

FIG. 223—Toniná, Chis. Monument T-8, Side a.

FIG. 224—Toniná, Chis. Monument T-8, Side a.

T-8. Cubic base for a stela, found in two fragments. Upper part stands on a grave on the ranch Ubala, close to the trail leading from Ocosingo to Bachajon and Sivacá. A wooden cross stands in a circular hole in the top of this fragment. Lower part found near a cane press on the same ranch, at a short distance from the ruins of a Spanish stone building, said formerly to have been a convent.

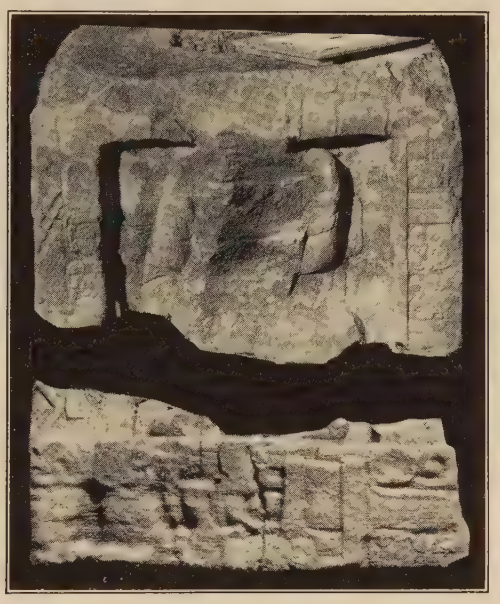


FIG. 225—Toniná, Chis. Monument T-8, Side b.

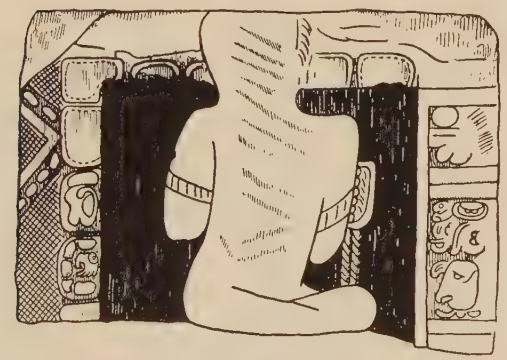


FIG. 226—Toniná, Chis. Monument T-8, Side b.

The inside of the block has been hollowed out in the shape of a bottle, with a narrow circular opening at the top, and a broad square opening at the bottom. Total height, 80 cm.; broad, 75 cm. (See fig. 199).

All four sides of this monument have carvings.

FIG. 227—Toniná, Chis. Monument T-8, Side c. Initial Series.

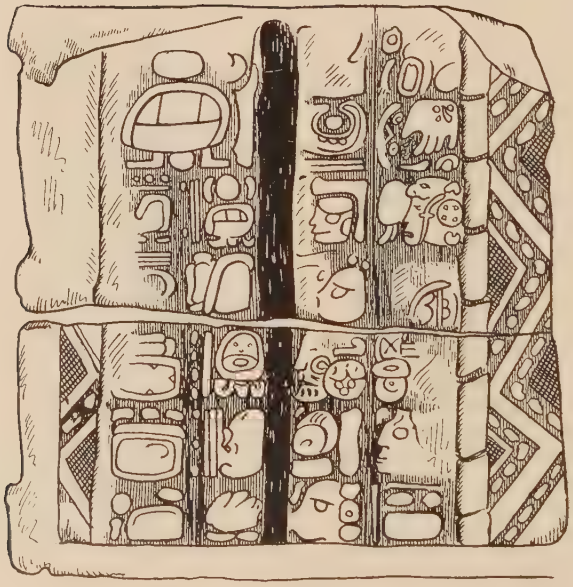


FIG. 228—Toniná, Chis. Monument T-8, Side c.

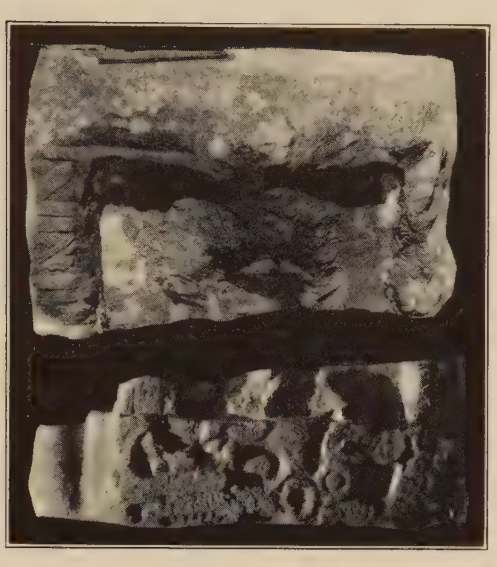


FIG. 229—Toniná, Chis. Monument T-8, Side d.

Side a. In the centre is a kneeling figure, probably a bound captive, along the top runs a band of stellar figures, and down both sides are a few hieroglyphs, of which one has the coefficient 13 in a horizontal position. The figure has been carefully destroyed with a chisel (figs. 223-224).

Side b. The central figure is a bound captive. Face and chest have been obliterated with a chisel, but the arms, tied on the back of the figure with a rope, are untouched. Along the left side is a band representing the body of a snake, and with two glyphs on its belly scales. The snake body continues along the upper edge. On the right side is a band with one stellar sign and two glyph blocks. Along the lower edge is a design which appears to represent the tail of a snake (figs. 225-226).

Side c. The snake's body commencing on Side b, runs along the edges of this side, and frames a hieroglyphic inscription, consisting of an Initial Series, written in two double columns of glyphs (figs. 227-228).

A-1—B-2,	Introducing glyph	C-1	?
A-3	9 Baktun	D-2	Glyph B ?
B-3	12 Katun	C-2	Glyph A coefficient 10
A-4	10 Tun	D-2	
B-4	0 Uinal	C-3	
A-5	0 Kin	D-3	
B-5	9 Ahau	C-4	
A-6	Glyph G	D-4	
B-6	18 Zotz	C-5	
A-7	Glyph F	D-5	
B-7	Glyph D	C-6	
		D-6	
		C-7	
		D-7	may be 5 Uinal, 5 Kin.

Reading: 9-12-10-0-0 9 Ahau 18 Zotz, (11 July, 422 A. D.)
5-5 ?

(9-12-10-5-5 10 Cimi 3 Yax)

In Glyph B-6 it should be noted that the coeficient 18 is carved in a somewhat unusual way, as the third bar is halfway hidden by the month-glyph Zotz.

Side d. The figure on this side of the monument has been totally destroyed with a chisel. Vertical bands along the sides carry stellar signs. Along the bottom of this side is the head of the snake which winds around the stone (fig. 229).

T-9. Fragment of standing human figure (stela) with head and feet missing. Heavy collar with mask centerpiece. Female figure (?) as breasts appear to be indicated. Hands, now missing, rested on heavy girdle from which hangs an elaborate apron. A cloak covers the back of the figure, and on this are hieroglyphs (figs. 230-231). High, 1.19 m.; broad, 48 cm. Found on Main Plaza, Toniná.

Glyphs: Two bands with five glyphs in each on either side. In center is a band with ten glyph blocks in double row on upper half of monument and eight more glyph blocks in separate cartouche on lower half.

Fig. 230—Toniná, Chis. Monument T-9, Front and Back.

Fig. 231—Toniná, Chis Monument T-9, Drawing.

A-1	Erased.	A-6	8 Uinal 6 Kin.
B-1	Erased.	B-6	
A-2	Coefficient 8?, month sign.	A-7	
B-2	Glyph E.	B-7	
A-3	Glyph D.	A-8	Erased.
B-3	Glyph C.	B-8	Erased.
A-4	Glyph X.	A-9	
B-4	Glyph B.	B-9	
A-5	Glyph A, Coefficient 10.		
B-5	End sign.		

The single rows of glyphs are illegible.

Reproduced by C. Seler, 1900, fig. 44. The supplementary series given by Morley in the Holmes Anniversary Volume, 1916, Plate IV, No. 32.

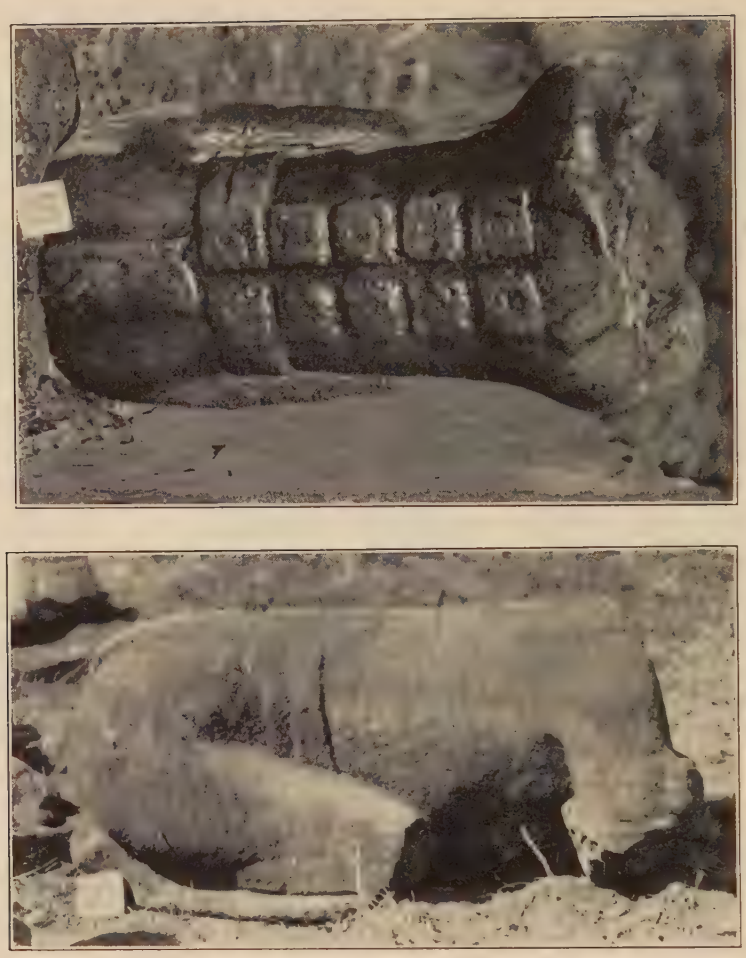


FIG. 232—Toniná, Chis. Monument T-10.

T-10. Figure crouching, resting on knees and elbows, arms crossed, head gone. Around the waist a belt is carved and on the back are four (maybe five) pairs of hieroglyphs, all badly weathered. Long, 98 cm.; high, 48 cm.; broad 51 cm. Found on main Plaza, Toniná.

Glyphs weathered (fig. 232).

T-11. Stone plug with serpent's head. Probably meant to be inserted in wall. Long, 1.10 m.; broad, 3 cm.; thick, 19 cm. Found on main Plaza, Toniná.

No glyphs (fig. 233).

FIG. 233—Toniná, Chis. Monument T-11.

T-12. Fragment of standing figure with head and feet missing. Hands holding ceremonial bar over chest. Elaborate wristlets. Very elaborate girdle and apron. Cloak hanging down back. If this figure had hieroglyphs on its back, they are so badly weathered that they cannot be seen. Height, 1.24 m.; broad, 75 cm.; thick 45 cm. Found on main Plaza, Toniná.

Reproduced: Tozzer, photograph in Spinden's Maya Art, 1913, Plate 25, No. 6 (fig. 234).

FIG. 234—Toniná, Chis. Monument T-12. Front.

FIG. 235—Toniná, Chis. Monument T-13.

FIG. 236—Toniná, Chis. Monument T-14.

T-13. Fragment of standing figure, head and legs from knees gone. Large square breast-plate. Hands resting on girdle. Apron with large mask. Back plain. High, 43 cm.; broad, 48 cm.; thick, 27 cm. Found on main Plaza, Toniná (fig. 235).

T-14. Fragment of standing figure. Head and legs from knees down gone. Ceremonial bar held by hands and also by band around neck. Cloak hanging down back. Eight glyphs, badly weathered. High, 77 cm.; broad, 47 cm.; thick 22 cm. Found on main Plaza, Toniná (fig. 236).

T-15. Fragment of figure sitting with legs crossed, Turkish fashion. Head and upper part of shoulders missing, also knees and feet. Hands tied on back. No glyphs. High, 77 cm.; broad, 57 cm.; thick, 40 cm. approx. Found on main Plaza, Toniná (fig. 237).

FIG. 237—Toniná, Chis. Monument T-15.

T-16. Circular altar with band of 16 hieroglyphs around the periphery on the top, and one large glyph in the center. Diameter 80 cm. Found on main Plaza, Toniná.

Glyphs: The sixteen glyphs along the periphery are much weathered. The central glyph is 9 Ahau. If this is a Katun ending, it must be either

9- 6-0-0-0 9 Ahau 3 Uayeb or
9-19-0-0-0 9 Ahau 18 Mol.

Morley prefers the first reading (figs. 238-239).

FIG. 238—Toniná, Chis. Monument T-16.

Fig. 239—Toniná, Chis. Drawing of Monument T-16.

T-17. Fragment of square stone block with gylphs on three sides. Long, 59 cm.; thick, 24 cm.; wide, 28 cm. approx. Found on main Plaza, Toniná.

Glyphs weathered (fig. 240).

FIG. 240—Toniná, Chis. Monument T-17.

T-18. Stone tablet with three figures in high relief. One large central figure seated, two smaller figures, one on either side sitting legs crossed Turkish fashion. Head of large figure gone. Faces of small figures mutilated. High, 75 cm.; long, 1.28 m.; thick, 10 cm.; highest relief 24 cm. (fig. 241).

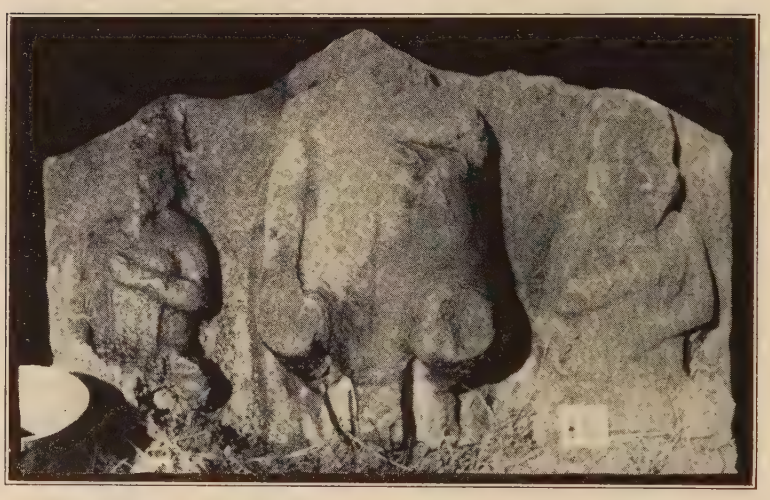


FIG. 241—Toniná, Chis. Monument T-18.

T-19. Fragment of monument, consisting of head and part of right shoulder of figure. This head does not fit any monument now found in Toniná. Badly weathered. Height, 37 centimeters.

T-20. Stela representing standing man. The head has been destroyed as on all Toniná monuments. Around his neck hangs a heavy necklace. He holds a ceremonial bar with stellar signs over his chest with both hands. Around his

FIG. 242—Toniná, Chis. Monument T-20, Front.

waist is a heavy girdle, from which hangs an elaborate ornament with a human face in the center. His thighs are covered with a short skirt. Knees are bare, and feet are covered with boot-like sandals, which reach to the middle of the shins. On his back he has a cloak, which is covered with hieroglyphs. High, 1.35 meters; broad 65 cm. Found at the foot of Mound 33, on its west side, Main Plaza, Toniná (fig. 242).

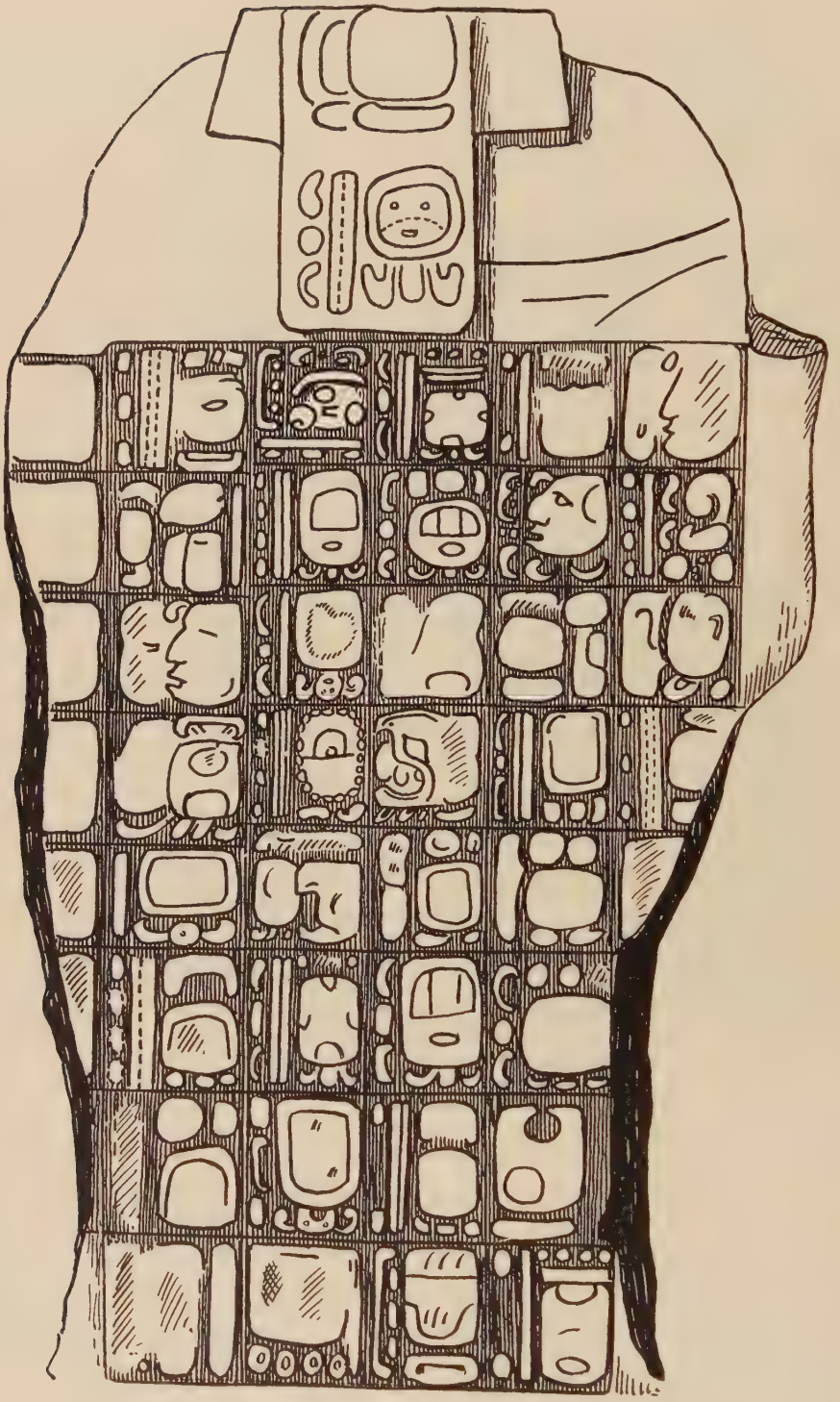


FIG. 243—Toniná, Chis. Inscription on Monument T-20.

Glyphs: On the back of the head of this figure was a band with a single row of glyphs. These have all been lost, but for the two

Fig. 244—Toniná, Chis. Back of Monument T-20.

bottom glyphs. These are 0 Kin, 11 Ahau. Apparently, as is the case on Monument T-21, we here have part of an Initial Series.

Across the whole back of the monument are three double rows of glyphs, which we name A-B, C-D, and E-F. Each of the rows B to E contain eight glyphs in a vertical line. As the edges of the monument are damaged, it is not possible to ascertain if the outside rows contained the same number of glyphs.

All the glyphs in row A are lost or erased. In row B we see B-1 which appears to be the month Mac with the coefficient 18. If we read this glyph as pertaining to the Initial Series, we get the date 11 Ahau 18 Mac, which fell as a Katun end in 9-18-0-0-0.

Glyph B-5 has a coefficient of 5, and B-6 a coefficient of 12, 13 or 14, probably the latter. The rest of the glyphs read as follows:

C-1 shows an end sign. D-1 to D-2 is a secondary series of 1 Katun, 14 Tun, 13 Uinal and 11 Kin, leading to a day with a coefficient of 6 (C-3) of 19 Mol (C-4). In glyphs C-6, D-6 we again have a secondary series of 1 Tun; 2, 3 or 4 Uinal and 11 Kin, leading to a day with the coefficient of 2, of a month with a coefficient of 17 (C-7, D-7).

E-1 appears to have a coefficient of 7, and F-2 of 9. In E-4 we have a day with coefficient 11, and a month with 18, E-6 appears to be 1, 2 or 3 Uinal and 1 Kin and again in E-8 we have another secondary series of ? Uinal and 7, 8 or 9 Kin.

Several glyphs are erased, and it is therefore very difficult to get a complete reading of this inscription.

The Initial Series date is probably, as already stated 9-18-0-0-0 11 Ahau 18 Mac. (530 A. D.) (figs. 242-243-244).

Fig. 246—Toniná, Chis. Detail of Hieroglyphs on T-21.

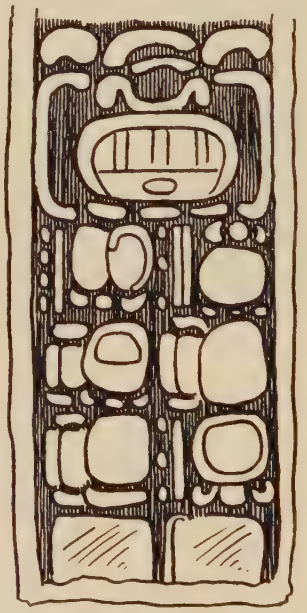


Fig. 247—Toniná, Chis. Drawing of Hieroglyphs on T-21.

T-21. Head and head-dress of figure. Face badly mutilated. On the back of the head-dress is an inscription with an Initial Series. High, 1.14 m.; broad, 64 cm.; thick, 30 cm. Found on Main Plaza, north or Mound 33, Toniná.

FIG. 245—Toniná, Chis. Back of Monument T-21.

Glyphs:

A-1, B-2	Introducing glyph.
A-3	9 Baktun.
B-3	13 Katun.
A-4	0 Tun.
B-4	0 Uinal.
A-5	0 Kin.
B-5	8 Ahau.
A-6	Erased.
B-6	Erased.

Reading: 9-13-0-0-0 8 Ahau 8 Uo.

This head does not fit any figure at Toniná (figs. 245-246-247).

Fig. 248—Toniná, Chis. T-22.

T-22. Hollow stone square, with a head carved on each side. Length of side 65 cm. (fig. 248).

T-23. Plain stela standing on one of lower terraces of Main Mound. High, 2.10 meters; broad, 84 cm. (fig. 249).

T-2 Small figure sitting cross-legged, with arms crossed over chest. Head and legs missing. Height 59 cm. Found at foot of Stela T-23.

FIG. 249—Toniná, Chis. Plain Stela, T-23.

FIG. 250—Toniná, Chis. Standing figure now in National Museum, Mexico. (Photo by Hugo Brehme). T-26.

T-25. Small kneeling figure with arms crossed over chest. Head missing. Height, 60 cm. approx. Found at entrance to passage on one of the upper terraces of main mound, by No. 8 on ground plan. May be part of figure published by Dupaix, pl. L9, No. 15, in Lord Kingsborough, Vol. IV. (see fig. 212).

FIG. 251—Toniná, Chis. Inscription on back of Monument T-26.

T-26. Standing figure, complete with head and head-dress, holding ceremonial bar across chest. Height, 1 meter, approximately. Found in Museo Nacional, Mexico, D. F., Photo, Museo Nacional.

Glyphs in band on back of figure. Much weathered. Morley reads: 9-7-0-5-9 12 Muluc 7 Pop (314 A. D.) (Figs. 250-251).

T-27. Figure of captive bound to tree. Height, 1 meter, approximately. Found in Museo Nacional, Mexico, D. F. Photo Museo Nacional.

Glyphs: Two glyph blocks over head of figure and two glyph blocks on thigh (fig. 252).

FIG. 252—Toniná, Chis. Captive bound to tree. National Museum, Mexico, D. F., T-27.

Found at some distance from Toniná ruins, to the southwest on a lot of land belonging to Hilario Garcia.

Reproduced by E. Seler, 1901, Fig 280 a-c; C. Seler, 1925, Fig. 43.

FIG. 253—Toniná, Chis. Three views of Monument T-28.

T-28. Fragment of standing figure from waist down. Front shows skirt and heavily ornamented apron, also sandaled feet. Through the center of the back runs a deep groove, on either side of which are double rows of glyphs. A small plug lying outside the Curate at Ocosingo undoubtedly belongs to this monument. Height, 1.25 meters; width, 75 cm. Found in front of Bishop's palace in San Cristóbal Las Casas. Brought there by Bishop Orozco y Jimenez.

Glyphs: The upper part of the inscription is lost. Morley reads: 9-11-5-0-0 5 Ahau 3 Zac (392 A. D.)

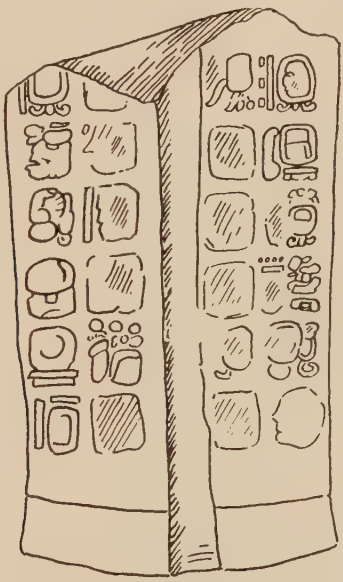


Fig. 254—Toniná, Chis. Drawing of Glyphs on Monument T-28.

Morley's note:

A-1	5, day sign (Ahau?).	B-1	Glyph G.
A-2	Glyph F.	B-2	Glyph C.
A-3	Glyph D. with no coef.	B-3	Glyph C. with coef 5.
A-4	Glyph X.	B-4	Glyph B.
A-5	Glyph A. coef. 10.	B-5	3 Zac?
A-6	End of Hotun?		

Glyph B-5, which is clearly the month sign of the I. S. terminal date, has surely a coefficient of 3 and to its left a prefix, which is almost certainly the Zac prefix. This, coupled with the day 5 in A-1, almost certainly 5 Ahau, and the end of Hotun in A-6, gives the date 9-11-5-0-0 5 Ahau 3 Zac.

Reproduced: Tozzer, photo in Spinden, Maya Art, pl. 25, No. 5. (figs. 253-254).

T-29. Part of badly weathered figure. Height 75 cm. Found in Museo Nacional, Mexico City, D. F. Glyph on back, Blom drawing. 7 Ahau? (fig. 255).

Fig. 255—Toniná, Chis. Inscription on back of Monument T-29. (Quarter Size).

T-30. Small figure with band of hieroglyphs on its back. Not located by TUX.

Glyphs:

A-1	12	Ahau.
A-2		
A-3	3	?
A-4		
A-5		
A-6		
A-7		

Reproduced in E. Seler, 1901, p. 195 (fig. 256).

FIG. 256—Toniná, Chis. Inscription on back of Monument T-30. (After Seler).

The Ocosingo Valley and Toniná are names that have, up to the present, been used in a very vague way. Monuments have been described as coming from Ocosingo without any reference to the particular place where they were found in the valley. In order to clear up this question we will discuss two monuments ascribed to this area before closing our chapter on Toniná.

In his "Maya Primer" Brinton reproduces a drawing made by Berendt of a stone from the town of Chiapa. It is stated that this stone was in the possession of Secundino Orantes. Morley discusses the inscription on this stone in his book on Copán, stating that the stone had been lost. Later, however, in the Carnegie Institution year-book for 1923, he reports that he located it in the possession of Don Emiliano Rabasa in Mexico City. Between the times when Berendt drew the stone and Morley made his photograph of it, one of its corners was damaged. We, therefore, give a drawing based on both the Berendt sketch and the Morley photograph (figs. 257-258).

The Chiapa stone, as it has been called, is the top of a stela. On its front is the face of a man in profile, wearing an elaborate helmet, and along its left edge a row of small glyphs, all badly effaced. Morley suggests that this inscription should be read 9-19-0-0-0, 9 Ahau 18 Mol. On the back are four columns, each containing five glyphs:

A-1		Secondary Series, Introducing Glyph.
B-1	11	Uinal 4 Kin (Berendt's Drawing).
A-2	?	Katun.
B-2	1	Katun ?
A-3	13	?
B-3	13	?
A-4	13	?
B-4		
A-5	6	?
B-5	9	?
C-1		
D-1		
C-2		Secondary Series, Introducing Glyph.
D-2	14	Uinal 15 Kin.
C-3	2	Tun.
D-3		
C-4	5	?
D-4	18	(horizontal) ?
C-5	9	?
D-5		

Both Morley and Spinden state that we have here a Maya long number with eight positions, so the stone is important, if for this reason alone.

Spinden states that it comes from Toniná, but we are very much inclined to doubt this. The general style of the carving and the

glyphs are more like those found along the Usumacinta River. Furthermore, the Chiapas stone is of a white, hard, fine-grained limestone, quite different from the yellow, coarse-grained limestone so distinctive of Toniná.

In the Isagoge Apologetico, an extract of which we have given in the preceding pages, we find a description of circular stone tablets with hieroglyphs along their border as common in the ancient Toniná. One of these has already been described, T-16. A similar tablet is found on the finca Pamtelá, about five kilometers north of Toniná. It is badly weathered and broken in half. In the National Museum

FIG. 257—The Chiapas Stone. (Photograph by Courtesy of the Carnegie Institution of Washington, D. C.)

at Mexico City is a third circular tablet of a bluish, coarse-grained limestone with glyphs along its edge, and in the center the profile picture of a man sitting cross-legged and holding an offering in his hands. The band contains fifteen hieroglyphs, of which one is the date 13 Ahau, and another the date 9 Ahau. If read from left to right these two dates are only 1 Tun apart, and Morley suggests the reading 9-19-0-0-0 9 Ahau 18 Mol. It is not at all certain that this stone comes from Toniná, but as it has never been reproduced, we give it here in Fig. 259.*

*Brinton, D. G., "A Primer of Maya Hieroglyphs," 1895, Page 138, Fig. 82—Morley, C. I. Y., 1923, Page 263—Morley, 1920, Page 281, Note 2—Spinden, 1924, Page 277.

DATES AT TONINA

T-16	9- 6- 0-0-0	9 Ahau 3 Uayab (294 A. D.)
T-26	9- 7- 0-5-9	12 Muluc 7 Pop (314 A. D.)
T-29	9-11- 5-0-0	5 Ahau 3 Zac (392 A. D.)
T- 8	9-12-10-0-0	9 Ahau 18 Zotz (422 A. D.)
T-21	9-13- 0-0-0	8 Ahau 8 Uo (432 A. D.)
T- 3	9-15- 3-0-0	5 Ahau 18 Chen (474 A. D.)
T- 1	9-15-15-0-0	9 Ahau 18 Xul (486 A. D.)
T- 7	9-16-10-0-0	1 Ahau 3 Zip (501 A. D.)
T-20	9-18- 0-0-0	11 Ahau 18 Mac (530 A. D.)
T-16	9-19- 0-0-0	9 Ahau 18 Mol (550 A. D.)

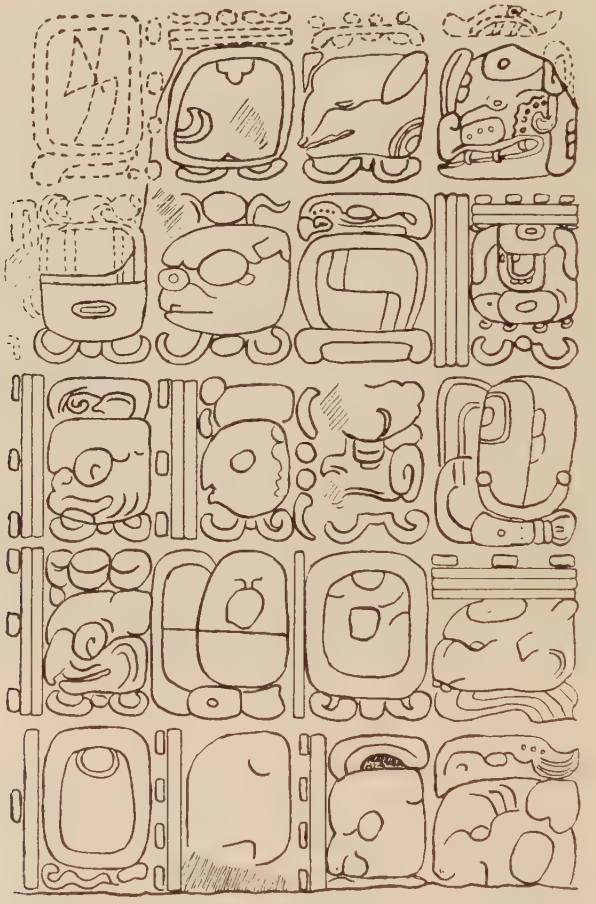


FIG. 258—The Hieroglyphs on the Chiapa Stone, Drawn from Berendt's Drawing and Photograph by Dr. S. G. Morley of the Carnegie Institution.

Before discussing the dates found on the monuments at Toniná, it should be noted that the Initial Series which so often begins an inscription rarely represents the contemporaneous date of the monu-

ment, i. e., the date on which the monument was erected. Very often the Initial Series is followed by additional calculations found in Secondary Series. The Secondary Series are frequently weathered or erased. It is therefore not always sound to base the date of a monument or the age of a city on the Initial Series inscription.

Dr. Morley reads the date on T-16 as 9-6-0-0-0 9 Ahau 3 Uayeb (294 A. D.), basing this reading on the 9 Ahau in the center of the stone, and the early form of the Ahau glyph given here. 9 Ahau, as a Katun ending date, can also occur in 9-19-0-0-0 9 Ahau 18 Mol (550 A. D.)

FIG. 259—Circular Altar now in the National Museum, Mexico City.

These two readings, 9-6-0-0-0 and 9-19-0-0-0, represent the earliest and the latest readings from Toniná. Between these extremes we find dates at comparatively regular intervals, and if we take the readings on their face value we see that Toniná was active between approximately 300 A. D. and 550 A. D.

Looking at the monuments from an artistic point of view and comparing them with monuments in other parts of the area, we see that Toniná stands alone. The stelae here represent standing human figures carved in the full round. Cloaks with hieroglyphic inscriptions engraved on them cover their backs. The variety of forms is also striking. We have the standing figures, figures sitting with

their legs crossed in Turkish fashion, one figure crouching on knees and elbows, several small circular altars, a large square altar, and one complete and several fragments of square stone tablets with circular holes in their centers and hieroglyphic inscriptions along their edges. The carving also is done in a distinctive way. In short, the Toniná sculpture, though produced by a Maya people, is quite distinct from anything else in the area, and one is inclined to draw the conclusion that an independent Maya tribe centered around Toniná as their capital. Can it be that Toniná was the capital of the Tzeltal-speaking people?

Correlating the dates found in Toniná with dates in other parts of the Maya area, we see that the date so important at Palenque, 9-13-0-0-0, is also represented at Toniná, and furthermore that Toniná took part in the period of activity between 9-15-0-0-0 and the end of the Ninth Cycle, represented by a multitude of monuments in nearly all the big cities of the Old Empire, such as Quirigua, Piedras Negras, Yaxchilan, Seibal, and many others.

Chapter XIV

HUNTING DOWN A RUMOR

The days at Toniná passed rapidly, and one fine morning our animals were again saddled and we were ready to leave, but first the whole Cruz family were photographed in their best clothes. They all lined up, and were much concerned about getting into the right pose and looking as serious as possible. The pretty daughter, so charming when she walked around the house in a simple dress, with feet bare and her hair loose down her back, was quite changed and not nearly so winning in her "Sunday best" (fig. 260).

Fig. 260—Toniná, Chis. Aureo Cruz and his Family.

With much cheering and waving we set out towards the mountains. Passing by the finca Achin, and the well stocked farm Quechil, we reached the foot of a mountain wall. Before starting the climb we camped at a small stream in the shade of a large pine tree and unpacked a luncheon basket which Don Aureo had given to Tata for us. Packed in neat, hand-woven napkins were tortillas, beans, sweet bread, and a really young and tender chicken. It was a feast, for which our thanks went back to Don Aureo and his family.

The steep zig-zag trail was then tackled. The mountainside was clad in scattered pine. Our ascent was slow. Most of the time we walked behind our horses to ease their climb, and when reaching the top of the pass, we looked out over the Ocosingo Valley to see the many places we had come to know.

Hardly had we started the descent through the narrow gorge of the pass before the vegetation changed to leaf trees. The sides of the gorge stood like cliff walls to right and left, the high trees forming a roof over our heads. Emerging from the pass we saw before us the San José Valley, where the red tile roofs of Finca San José Reforma shone through a cluster of trees far below us. It started to rain, but not until we were safe in the patio of the finca did the real downpour begin. The rainy season was approaching, and every afternoon would generally bring a small shower, though, as luck would have it, rarely before we were in shelter.

The finca seemed abandoned, but after a while some women appeared and told us that Don Alejandro was out in the fields. So we waited while the rain beat down on the roof. At about 6 o'clock Don Alejandro himself came in. We had been eager to see him, having been told that in his youth he was the champion gambler of Chiapas. He had owned vast lands and gambled them all away, even his last property, San José, had been lost and regained in a night's wild play.

A small, shrunken man, who constantly smoked thin cigarettes, stood before us. At once we were given a room, and after a while called into the dining room for a meal of fried bananas, black beans, tortillas, and coffee.

We had heard that there was a Saint of Stone, Santo Ton, as the Indians called it, near his finca, and he described it, and the figure carved on it. "But that old stone is of no importance; there are many out there in the forest—all the paving stones for the floors and the porch in this house came from there." Of no importance! A monument with a figure on it certainly was important to us, and that the owners of the place had torn down what probably was an old temple was like a knife thrust.

San José Reforma lies at the end of a lovely valley, and is beautiful and attractive in every way save for the millions of diminutive gnats that appear in the evening and all during the night. We slept in a hermetically sealed room, and were awakened many times by the stamping of our restless animals, galloping around in a futile attempt to avoid the bites of the small pests.

For breakfast we again indulged in fried bananas, black beans, tortillas, and coffee, and then set out for the ruins, guided by some of Don Alejandro's Indians.

After half an hour's ride we dismounted and continued on foot along the southern side of the valley in a southwesterly direction, crossing several steep hills, finally reaching the top of one which was terraced and levelled. Here we found the ruins of an old building, ruined by time and re-ruined by former owners of the hacienda. This structure faced a levelled Plaza, and opposite it at

FIG. 261—Santo Ton, Chis. Stela 1.

FIG. 262—Santo Ton, Chis. Stela 1.

the foot of a small hill near some springs was the monument (figs. 261-262). It turned out to be a stela 1.50 meters high, 51 cm. broad, and 18 cm. thick. It lay on its face; back and sides were plain. As we lifted it into erect position, we saw a standing human figure carved on the front, a warrior or priest with face in left profile. An elaborate helmet covered his head, and in his right hand he held a strange object. As we do not know what this object was used for in ancient times, we take cover under the much used and

abused designation "a ceremonial object" (fig. 263). Along the upper left side of the stela was a band of hieroglyphs, too badly weathered to be recognized.

The figure is carved in flat, low relief, and is of a type common in the cities further east along the Usumacinta river. As we had expected to see this place influenced by the type of sculpture so distinct to Toniná just across the mountain, we were puzzled to find that the influence came from quite a distance away.

The "ceremonial object" which the figure holds in his hand is rarely seen on monuments from the Old Empire. On the west side of Stela 30 in Naranjo is a man armed with what appears to be a lance, holding a similar object in his left hand. The central figure on the badly damaged wooden lintel in Temple III at Tikal appears to hold on his chest a huge wooden drum covered with jaguar skin, and has a three-pronged object in his left hand with which he appears to beat the drum. The third object of this kind is the one encountered on the stela at Santo Ton. Here again it has three

Fig. 263—"Ceremonial Objects."

points. One of the figures in the sculptured chamber below the Temple of the Tigers and Shields at the Ball Court in Chichén Itzá holds such an object having four points in his right hand. It also appears in the Dresden Codex.

Before we could see the figure we had to go through the usual procedure. When a monument is located it is first raised to a position which enables us to photograph it. Sometimes it is set on end—more often only raised on one side and photographed in horizontal position. Monuments are often partly buried in the ground and have to be excavated. Again we find them in the grip of the roots of huge trees, which have to be cut down. When the monument has been freed, it is scrubbed with stiff brushes in order to remove dirt and moss, then water is thrown on the surface, as the stone photographs better when wet. Often trees have to be cut or the heavy monument moved in order to get it in a light that will make the carved relief stand out sharply. Then the camera is set up, and

when everything is ready to take the photograph one may be reasonably sure that a cloud will pass over the sun and spoil the light. Several photographs are generally taken, and in order to be absolutely sure of a picture, a drawing is made on the spot.

The drawing in itself incurs much labour. It must be to scale. Often on the badly weathered stone it is difficult to distinguish which lines are due to time and which were made by the sculptor. By letting one's finger tips run along the grooves, it is possible to distinguish the rough, jagged lines of weathering from the smooth, even lines carved by the sculptor's stone instrument.

We were hungry when we returned to San José and to fried bananas, black beans, tortillas, and coffee, with the same for supper. Don Alejandro told us that many, many years ago a young man had come through that country, and had gone into the forests and lived among the Lacandon Indians, who still worship the sun and rain gods, and who use flint-headed arrows up to this day. With much pride we told him that we knew that man, that it was Professor Alfred Tozzer of Harvard, who had guided us into the mysteries of the history of the ancient Maya. The pupils were proud of hitting the master's trail.

Fig. 264—El Real, Chis. Don Enrique Bulnes and two small Indian girls.

Something must have happened overnight, as a chicken was added to our morning meal of fried bananas, black beans and coffee. We did justice to the chicken, and then took leave of Don Alejandro, who presented us with several bunches of Lacandon bows and arrows.

El Real was to be our next stop. Without a guide we followed trails through the valley towards the southeast. We did lose our way for a little while, but soon came back on the main trail, passing through two large Indian settlements, El Refugio and Mexico Nuevo. At this latter place we met a young man and some cowboys driving oxen. The young man turned out to be Martin Bulnes,

son of the owner of El Real, so he took the lead. We were presently riding through extensive pastures, and while we stuck to the trail young Bulnes dashed here and there rounding up a herd of cattle, driving it towards the finca.

El Real is another place we shall remember because of the hospitality received there. In a small office bent over books Don Enrique Bulnes (fig. 264) received us with greetings in English, and led us to a small guest house, where beds were ready, and the floor strewn with fresh pine needles. Rumors of our coming had run before us and the whole Bulnes family were ready to make us comfortable. We felt at home. We found books and newspapers which, though old, were new to us. In one we found the telegrams we had sent home from Tabasco so long ago. We spent a whole afternoon in hammocks, smoking, reading, and enjoying all the treats brought us by the women of the household. Don Enrique had been educated abroad. He questioned us about New York and Mexico City, and we asked him about the Indians, of whom he had a keen and friendly understanding. He also told us about Professor Tozzer, who years ago had stopped over at El Real on his way to Ocosingo with a picturesque escort of long-haired Lacandon men.

Rumors of carved stones constantly came to us, and in most cases we found them to have foundation. We had heard that a stone with hieroglyphs was set into one of the walls at El Real, but no such stone was there, nor had Don Enrique ever heard of one. His son told us of house foundations by the Santa Cruz river, and of ruins far into the Lacandon country. A road is now being made into the forest from El Real towards the Usumacinta River, and several hitherto unreported lakes and lagoons have been found.

We finally got definite information about the ruins at Agua Escondida, which Karl Sapper, the German explorer, mentions in his book "Das Nördliche Mittelamerika" published in 1897 (p. 355). He did not visit the ruins, and we had long desired to investigate them. Don Enrique informed us that they lay two days ride from the finca Tecojá, and that the owner of the finca, Don Pedro Vega intended to go to San Cristóbal las Casas within a few days. So we left El Real the following afternoon, arriving at Tecojá after two hours ride over an unusually malicious trail over hills composed of a very hard, jagged limestone, which permitted us to advance only pace by pace.

Tecojá lies at the junction of the Jataté and Santa Cruz Rivers, on the left bank of the latter. The finca consists of an extremely pretty old Spanish Colonial house surrounded by a small settlement of Indian huts (fig. 265). There was fiesta among the Indians,

whom we found singing and dancing, their houses decorated with pennants and flowers. After dark they shot off innumerable rockets in honour of the local saint.

As we were received by Don Pedro, one of the men in his party approached us with a broad grin, saying that he knew all about us and what we were doing. He had been informed by a muleteer who had arrived the previous day telling of the strangers who were following the footsteps of Jesus Christ through Mexico. We had been accused of many strange things, and heard many fantastic tales about our doings, but this took the prize. It appears that a muleteer had watched us while we were drawing the monument at Ubalá outside Ocosingo, and we remembered that the owner of the Finca Ubalá had asked us about the date on the stone. In explaining the date we gave its age, i. e., 422 *after the birth of Christ,* and the clever muleteer had drawn his own conclusions.

FIG. 265—Finca Tecojá, Chis.

In the angle between the two rivers lies an open savanna, with the remnants of an ancient Plaza surrounded by several mounds. The group of structures is not very large, and there are no signs of buildings. One of the larger mounds lies with its back to the bank of the Jataté River, and has a stairway on the side that turns away from the river. No monuments were found among the ruins. The place for some unknown reason has been called "Australia" (fig. 266).

On we went in our quest for the "hidden water," Agua Escondida. Riding for a whole day along the left bank of the Jataté River we reached La Florida, a station on the narrow trail that runs into the mahogany camps in the heart of the forest. Twice during the day we passed minor groups of mounds, and at one place enjoyed the sight of some red and yellow macaws flying screeching from tree to tree.

At La Florida we found one family and a rest house for muleteers who transport provisions to the lumber camps. We took possession of the hut, and though the setting sun cast its rays through

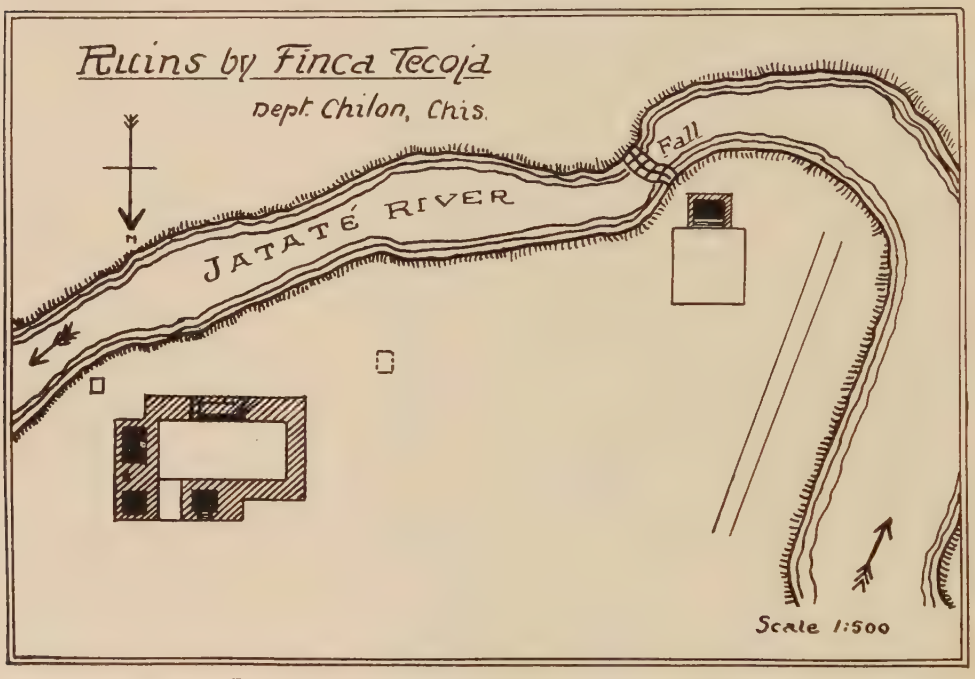


Fig. 266—Tecojá, Chis. Map of Ruins near the Finca.

the roof of our house, we found that the furniture, consisting of a rough bed and some tables, was of solid mahogany.

During the night it rained, and all hands were called out to stop leaks with our rubber ponchos. In the morning we got into communication with the only male inhabitant of La Florida, Don Virgilio Pinto "the spotted Virgil." Virgil was a frail little fever-ridden man, with some very tall stories. He consented to give us an extra horse, and to guide us to the ruins. So he and I set out with fresh animals in advance, letting La Farge and Tata follow with the pack train.

For five hours Virgil and I kept up a rapid pace over a steep and slippery trail through some of the most magnificent mahogany forest seen on the whole of our journey. At last we reached a small clearing, Agua Escondida, and surely its name is appropriate. A small stream trickles out from under a cliff, running in the bottom of a deep ditch for a few hundred meters, to disappear again into the ground. There is no water between La Florida and this place, and the next waterhole is a full day's journey ahead, hidden in the darkness of a cave.

Fig. 267—Agua Escondida, Chis. Main Temple.

We stopped to let our horses drink, then continued along the trail, and after five minutes ride we reached a large artificial mound. In a jump I was off my horse, and scrambled to the top of the mound where I reached a small Plaza surrounded by mounds. There, in front of me, lay a well preserved, terraced pyramid and the perfectly intact back wall of a temple, the ruins of Agua Escondida.

Another rush up to the temple wall, then round the end of the building to its front, likewise intact, where I entered the first room, then the sanctuary in the center of the building, and at last the third room. Some of the walls were cracked, and the roof was covered with a network of grass and flowers; but otherwise the building stood perfectly preserved, just as it had been abandoned over a thousand years ago (figs. 267-268).

Sitting down for a rest, I looked through the dense growth which covered the sides of the pyramid to see its well preserved walls, and

down below I could distinguish a terrace on which a small mound stood, but on account of the thick forest I could see no further.

Then Virgil and I drew our machetes and began slashing down bushes and trees. Little by little we cleared the front of the pyramid, and when the pack train came up hours afterwards we stopped to help transport our equipment to the temple rooms. We were going to spend the night here where none of our race had ever slept before.

Just before dusk luck again favoured us. It would have taken the combined efforts of La Farge, Tata, myself, and the sweet but

Fig. 268—Agua Escondida, Chis. Main Temple.

useless Virgil several days to clear the forest around the temple enough to take photographs. When we heard the familiar cries of muleteers, we rushed to the trail and saw a team of mules and several Indians passing by on their way from the mahogany camps to Tecojá. After a great deal of talk to and fro, and promise of cash to the foreman, we persuaded them to hold their journey up for a day in order to help us. This added four able men armed with broad-bladed bush knives to our party.

We stowed our saddles in the sanctuary. Tata took possession of one room for his kitchen (fig. 269), and in the other we hung

our hammocks. After dark we sat around the fire in our temple-kitchen. The rain poured down outside, but the solid roof protected us.

As dawn crept into the forest we were having our breakfast, sitting with our feet dangling over the edge of the upper terrace wall. Then we set to work with our men, slashing bushes and cutting down arm-thick vines hanging from the trees. Little by little the whole front of the temple was exposed. Trees were cut—they would stand for a moment swaying, bend, then fall down the side of the pyramid with a crash.

FIG. 269—Agua Escondida, Chis. Tata's Kitchen in the Temple.

The stairway leading to the temple was laid bare. Many of the stones were dislodged, but in the dirt and leaves covering the surface, we could distinguish nearly every single step (see fig. 267).

The temple faces northeast, and stands on a pyramid of three terraces with battered walls, built before the stairway was added. The whole structure stands on a large terraced mound which was built gradually as the city grew. The contact between the first part of this terrace and a later addition towards the west can clearly be seen. Moreover it is noted that the stone blocks in the first building are more crudely squared than those used in the addition (figs. 270-271).

Structures 1, 2, and 3 on the ground plan are ruins of smaller buildings, all of which probably had roofs of thatch, as the walls are not covered with debris that would indicate a stone roof (fig. 272).

Section and elevation show clearly the arrangement of the buildings and mounds, so a description of the temple only will be necessary.

This building, as already stated, contains three rooms. Entrance is gained through five doorways, two on either side giving access to the outside rooms. These rooms are identical in size, and the axis of the vault runs with the length of the building. The walls are very thick and covered with a layer of plaster, most of which has now dropped off. Several square holes pierce these walls in double row. The lower row is flush with the floor, and may have been meant for drainage. The upper row may have served as windows or more likely as air holes. They are partly blocked up on the outside.

Fig. 270—Agua Escondida, Chis. Profile of Main Pyramid, showing later addition.

The pillars dividing the doors are built of cut limestone slabs, laid in pairs, and at right angles as can be seen from fig. 273.

The central room is small, and has only one doorway. It does not occupy the entire depth of the building, but ends in a niche. This room undoubtedly served as a sanctuary. The walls are covered with plaster, which is blackened by smoke, probably from the burning of incense.

The roof is of typical Old Empire form, being gambrel, with a low roof crest. This roof crest is composed of three rows of low pillars joined by limestone tablets, similar to that on House A at Toniná.

Remnants of stucco figures in low relief were noted on the roof slope, the only indications of ornamentation found in the whole city.

A search for monuments was undertaken, and we crossed the dense bush in all directions, but failed to locate a single stela. How-

ever, after we had left the ruins far behind us an old Indian lumber cruiser informed us that he had seen standing stones at the foot of a hill in a northeasterly direction from the ruins at a distance of one-half *legua,* or two kilometers.

It was a day of intensive work. Our men could not wait, and as our animals were weak we wanted to take advantage of the mule team on hand. By late afternoon we had succeeded in mapping the ruins, taking a series of photographs, and scouting for monuments. La Farge spent a great part of the day dangling from a rope on the side of the temple roof, a part of which he cleared, making studies of the roof crest.

A second night was spent in the temple; then we packed our equipment and turned our noses towards Tecojá. Our quest for the "Hidden Water" had been successful, and we were not to penetrate further into the forests, but to turn towards the southwest, heading for San Cristóbal Las Casas.

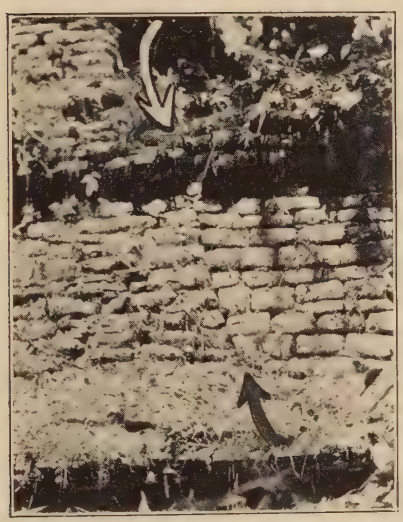


Fig. 271—Agua Escondida, Chis. Contact between Main Pyramid and later addition.

As we rode back towards La Florida, the "Painted or Spotted Virgil" entertained us with fantastic stories about his experiences during the last revolution. The Government forces had driven the de la Huerta rebels into this remote corner of Chiapas where their only escape was to cross over into Guatemala. But the Guatemala government had troops on the few trails that led through the forests into that country. In their rush for safety the Mexican rebels commandeered horses and mules—in connection with this, Don Enrique at El Real once remarked that he was going to take to raising burros, as it was beneath the dignity of a rebel to ride on such an animal—but, to return to Virgil, a swarm of poorly fed and scantly clad rebels, who were in fear of the government forces, had fallen upon La Florida. They commandeered, according to Virgilio, ten thousand corn cakes and quantities of chickens, cows and horses. In their frantic hurry many had died on the muddy trails, and several times we passed by skeletons of horses and mules which had fallen on the road and been abandoned.

Aided by the mule team of our friends we progressed rapidly, reaching Tecojá in the forenoon of the second day. We contem-

plated going on to El Real at once, but the sight of our tired horses made us decide upon a rest. Little by little the strain of the bad trails was wearing on them. They had been fed exclusively on leaves for a long period. Ahead of us lay climbs over many mountains before we could reach San Cristóbal, where we were going to

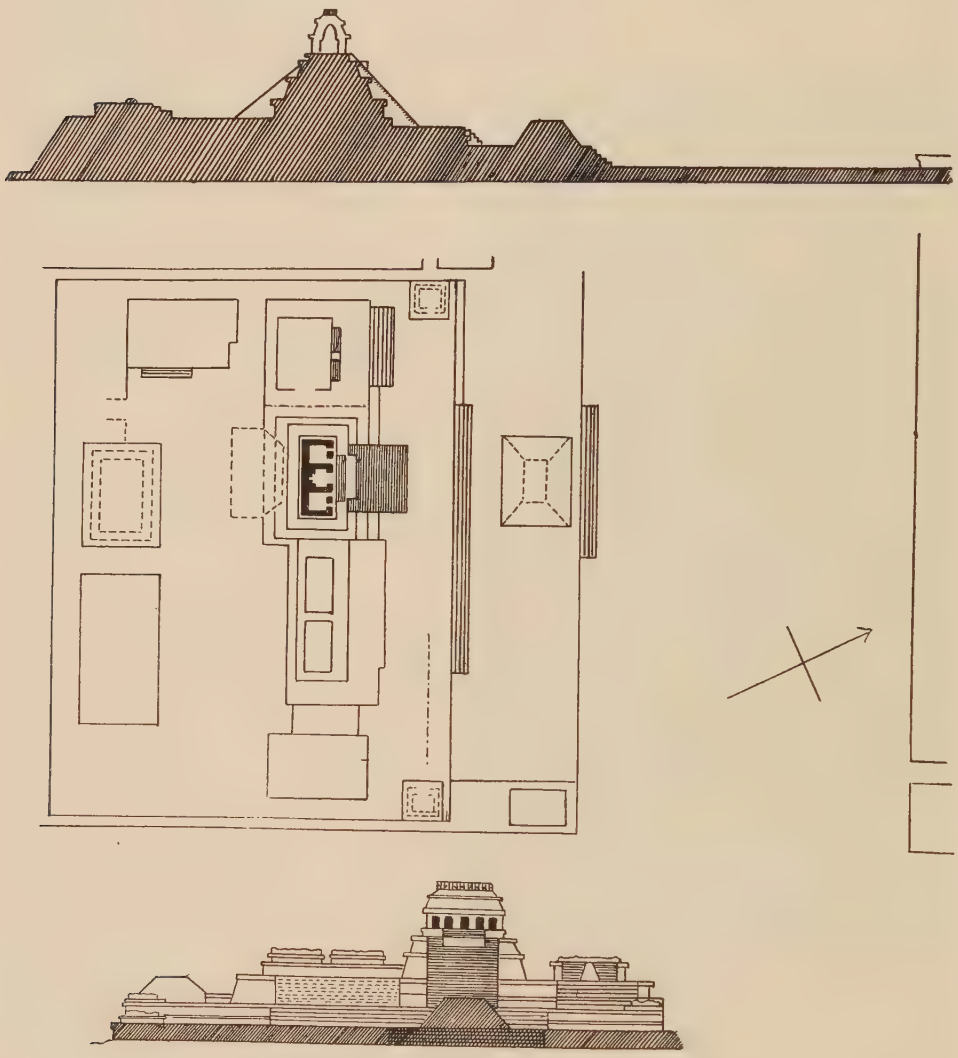


Fig. 272—Agua Escondida, Chis. Map of the Ruins, Scale 1:1000.

make a prolonged stop. We therefore sought to spare the poor beasts as much as possible, and more so as Tata would look reproachfully at us when we attempted to be hard on his beloved "niños," children, as he called the horses.

We re-crossed the bad trails to El Real, and again took up our charming quarters in the balsam strewn room in Don Enrique's guest house. That evening we had a small dance. One of Don Enrique's sons and a foxy looking old muleteer (a part of the inventory of the finca) dressed in corduroy trousers, a bulky jacket, and a red bandana handkerchief, played guitars and sang Mexican songs. La Farge and I were the cavaliers to Don Enrique's daughter. After we had danced, the music struck up one of the Indian tunes and two of the Indian girl servants in the house came in to dance for us (fig. 274).

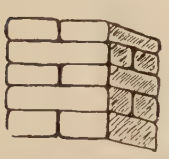


FIG. 273 — Agua Escondida, Chis. Sketch showing the placing of cut limestone blocks in pillars.

Gliding noiselessly over the floor to the strains of the guitars, they would first meet then part. In the yellow light of the oil lamp their brown faces became darker than usual, and not a smile passed over their features. Every time the music stopped they would disappear out into the dark yard, to reappear when the "orchestra" started another tune.

The evening passed rapidly — to us a novel pleasure, to our hosts a rare occasion. It is seldom that strangers appear to liven up the daily life of those who live so far away from the highways.

When we bade farewell the next morning, Don Enrique was also in the saddle, as he had to go on a business trip to Ocosingo. Guided by him we followed the trail over a pass leading into the Ocosingo Valley from the northeast. At an altitude of 825 meters above sea level we rode by the small ranch Agua Dulce, and were told that the

FIG. 274—El Real, Chis. Tzeltal Indian girls.

owner had excavated some beautiful ancient pottery. We did not see it, as he had long ago given it away.

The top of the pass lies at an altitude of 1,180 meters and from there the trail follows along the side of the Ocosingo Valley. Below us to the left lay rolling hills clad in a forest of tall pine trees standing far apart on a carpet of rich grass. The end of our day's ride was the finca San Antonio, formerly owned by Don Enrique, but now by a Spaniard, Don Pedro Celorio.

FIG. 275—San Antonio, Chis. Indian girl with Mexican baby.

San Antonio in ancient times was the headquarters of the Dominican friars, and we had heard of a cave supposed to have been used by them as a treasure house.

Don Pedro Celorio is a large and broad-shouldered Spaniard of Conquistador type, at least that is the type of man I picture old Bernal Diaz to have been. He received us with much courtesy, at once showing us to the guest room. Every ranch here has a separate room for guests. The humbler ones and those who do not look quite trustworthy are lodged in rooms that have no communication with the main house. But hunters of old stones are evidently considered a special and rare brand of travelers who should be lodged in the "Casa Principal."

Scarcely had we finished a good meal before Don Pedro had animals saddled, and led us out to the "cave." This lay only ten minutes ride to the south of the main house, and turned out to be a large burial chamber in an artificial mound. A passage seven meters long leads from the southern side of the mound into a square

chamber. It is built of unusually large stone blocks carved out of a limestone containing quantities of oyster shells. Some of these blocks, particularly those forming the roof of the chamber, are of a size rarely seen in Maya structures, the largest being at least 2.20 meters long, 1.50 meters broad, and 30 cm. thick. Moreover, it is interesting to note that the ceiling of the chamber, as well as the passage, is flat, not vaulted as is common in Maya structures. Were it not that the chamber was inside a mound oriented to the cardinal points, lying in connection with several minor mounds likewise oriented, I should be inclined to believe that this "cave" was the work of the Dominican friars (fig. 276).

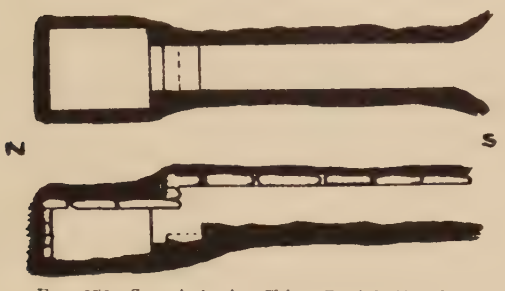


FIG. 276—San Antonio, Chis. Burial Chamber.

For scores of years there have been rumors that a treasure was to be found in this "cave," and many are those who have excavated, but no one has found anything. One of the most recent excavators told that he had encountered a floor of stone tablets just as solid as those in the roof.

Along the western side of the mound lie two large stones that look like stelae. They are without carvings.

After the sun had disappeared behind the mountains we listened to Don Pedro's tales of the last revolution; how the rebels had fought a mighty battle in the early morning fogs from the fence of his yard; how his family had been inside the house and he far away where he could not look after them; how later the federals came to the house and killed fourteen head of cattle in one day to feed the troops. Taken all in all, they are just as bad as the locust plague, he said.

It was cool and crisp and the fogs were just lifting from the valley as we continued our journey, now escorted by Don Pedro. As he rode before us, we thought of Bernal Diaz del Castillo, the old warrior who lived in these parts of Chiapas, and at an old age took the pen to tell the world the true history of the Conquest. A great fighter with the sword, he also fought well with the pen, and it is chiefly due to him that we have such a vivid picture of the days when a small band of white men laid the new world under their rule.

We passed a long line of Indian women who were going to the corn fields to help their men with the work. As we rode by they

stepped aside from the trail and, mumbling a benediction—or maybe a curse for all we could hear, they bowed to us. Reaching the top of a ridge Don Pedro pulled his horse up alongside the trail and bade us farewell with a broad sweep of his hand. Then he disappeared into the pine forest.

By way of Achin we reached the trail that runs through the center of the valley. To our right we saw Toniná, standing out strongly in the landscape after we had cleared the ruins. The pyramid of Campomtik next came in view and presently we were riding into Ocosingo.

Chapter XV

THE NORTHERN TZELTAL TRIBES

Ever since leaving Zona Sala, we had been working in the country of the Tzeltal-speaking tribes who form an outpost of the Highland Indians. The Bachajon, of the Finca Encanto and Bachajon village, and the Indians of Ocosingo and the neighbouring valleys, living as they do, cut off from the outside world, strong in number, and of a rather independent disposition, gave us the first evidences of how little the Indian of the Chiapas Highlands has changed since the days before Columbus. The kings and priests are dead, the temples have been replaced by churches and Christian forms, but the Indians and labourers of today in many respects live the life that their humble forebears did five hundred years ago.

At this point, before describing our trip up into the true mountain country, it seems opportune to tell something of these people, their manners and customs. We did not have time to make an exhaustive study of any of them, but they were constantly with us as guides and labourers, and we passed through many of their villages. At El Encanto we had a chance to visit and examine the settlement of the finca's workmen, with the kind help of Señor Ciriaco Aguilar, who acted as interpreter and supplied us with invaluable information. Señor Arturo Tovilla helped us with the Linguistic Lists (see Appendix III), as well as describing many of the customs recorded in this chapter. Señor Aureo Cruz of Toniná dictated a Tzeltal Prayer and Conversation, which was analyzed with the help of Señor Manuel Bulnes of El Real. (See Appendix VI). In general it may be said that all the Spanish-speaking people with whom we dealt helped us in every way possible.*

The Bachajon (*Batcahon*) and Ocosingo Valley Indians are, as has been said, an outlying part of a large group living in the mountain country. They speak the Tzeltal language, belonging to that branch of the great Mayance stock more closely related to Maya. In the pine country of Chiapas they hold the largest share of land, occupying an irregular area running southeast from Simojovel to

*The written sources bearing directly on the ethnology of these people are very meager. Nuñez de la Vega (1702) gives the best account of the early religion; his section on Nagualism has been reprinted by Paniagua (1908) along with an important selection of other early sources. Licenciade Vicente Pineda (1888) in his account of the Indian uprisings, gives some information, together with the most complete linguistic material. He gives a native calendar, probably based on one published by Emeterio Pineda (1845). Of modern scientific works, Starr (1901 and 1903) has ethnographic material, and publishes the only physical measurements (1902). Seler (1898) goes into the calendar in detail. For comparative material Tozzer (1907) and Sapper (1925) have been our chief reliance. Sapper's "Nordliche Mittelamerika" (1897) was in constant use in the field for information on all subjects. Particular references are given as they occur. Prof. Rudolph Schuller kindly allowed me access to his manuscript material.

the Guatemala border, which it overlaps at Gracias á Dios. They do not reach the highest part of the mountains. For the most part, they live in isolated tribal groups, although in some places, notably in Ocosingo Valley, they are attached to *haciendas* and *fincas*. Much of the easternmost country marked in the maps as belonging to them and the Chol is actually uninhabited wilderness, or, if occupied at all, is Lacandone territory.

Their immediate neighbours of the Highlands are the Zotzil and Chaneabal. The former speak a language differentiated from Tzeltal only by a shift of *a, e,* and *b* to Zotzil *o, i,* and *m,* respectively.* Chaneabal is spoken by a small group near Comitan. The people of that place say that the language is simply Tzeltal influenced by Mames contact. The list given in Appendix III, seems to bear this out. To the north, and around Tumbalá, are the Chol Indians, whose language is quite distinct, but, of all the other Mayance tongues, probably the nearest to the Highland group.

The language itself has been variously named Cendal, Tzendal, Cendales, Tzental, and Tzeltal. I have taken the latter form, as it most nearly represents the Indians' own form, *ts'eltal,* varied in careless speech to *tceltal.* The villages are spoken of as tribes, because each one forms a separate, self-governing unit. There is no evidence of cohesion within the language-group as a whole save during certain periods of uprisings. Individual villages may resemble tribes of another speech more closely than they do those of their own. The Mexican spelling of Tzeltal names is given first, followed by the phonetic spelling (See Appendix III), and the translation, if known.

The Bachajon live on the threshold of the pine country. Their farms may be found hidden away in the thick jungle land of mahogany and palms, through which their little hidden trails lead to houses tucked away out of sight of alien travelers. Altogether, they are estimated at five thousand families, but it is doubtful whether evidences of more than fifty farms could be seen by one passing along the trail through the heart of their country. The capital, Bachajon Village, is among the pines. There, periodically, the Spaniards used to round them up, that they might be more easily policed, and for the benefit of the church established there. Once there was a fine, stone church and a neat Cabildo with white walls, colonnade, and tiled roof. Both have been wrecked by the Indians, apparently because they did not like to be reminded of alien domination, for from the wreckage of the old church, they took tiles to roof their new one, and they have a straw-thatched Cabildo for the Maestro, or government agent.

*Starr (1903) quoting Sanchez (1890).

The country near the village has been farmed out long ago; now the fields lie at a distance in the jungle. After every concentration, the Indians drift away again like blown smoke. Today most of the houses are rotten, sagging, with gaping doors. The paths are grown up with weeds, huge, old moss-covered crosses lean at crazy angles by the main trails. Over all broods the frame of the sacked church, huge stone walls with rank vegetation around them, and a twisted, unhealthy oak-tree on one side, like a composition by Piranesi.

Fig. 277—Ocosingo, Chis. Colonnade on the Plaza.

Ocosingo Valley and its neighbours furnish a transition towards the real highlands. The valleys are fertile and green, ringed in with ranges of steep, rich hills. The soil in the lower parts is light; here palms and pines grow together, with a luxuriance of rich grass that makes an ideal grazing country. Through the valleys are large and small ranches of Ladinos and old Spanish families. The bigger ones, such as San Antonio, Quechil, and Achin in the Ocosingo Valley, San José Reforma and El Real beyond the San José Pass, and Tecojá in its own valley, each has a village of Indian labourers attached to them. The natives' houses are rather better that the average, and often tile-roofed (fig. 278). The Indians of each ranch function more or less as a tribe, governed by the owner of the ranch, conducting their own worship at its chapel. A few Indians own scattered, independent farms. Sivacá (*sivak ha'*, "Gunpowder Water"), near Ocosingo on the trail to Tenango, is a true village, self-governing, with its own *alcalde,* under the supervision of a Ladino *maestro.* All these groups come together at

certain times of the year for ceremonies, such as those at Chakalchib, and formerly at Campomtik, to be mentioned later. The Bachajon hold their own ceremonies at their village.

Physically, the Tzeltal, like all the Mayance Indians, are short, averaging probably about 160 centimeters (5 feet, 4 inches) for the men, and slightly less for the women. Their build is slender, with stringy muscles, except for a good development of the calves. Hands and feet are small and well-formed. Their slenderness is deceptive, for their great strength lies in their legs, back, and neck, seen in their ability to carry loads of 45 kilograms (100 lbs.) and upwards, all day up and down hill without undue fatigue. Taking in a tump-line a load under which they cannot rise from the floor

Fig. 278—Finca Tecojá, Chis. Houses of Indians attached to the Finca.

without help, they will carry it with ease. The lifting power of their arms is less than that of Americans or Ladinos. Their headform is meso- to brachycephalic, and the cranium is small. Deformation in the shape of a marked depression just above the juncture of the hair-line and the forehead, due to the use of a tump-line from early infancy, may be responsible for the conical appearance of the top of the skull. Noses are, on the whole, mesorrhine and small, with little appearance of the famous "Maya Nose," and then in a narrow form, lacking the width of nostril seen in pre-historic figures. Prognathism is slight, alveolar proganthism being the more common, particularly in children. Hair form is straight, coarse, and black. Gray hair or baldness are very unusual. Body hair, as far as could be observed,

is negative. Among the Bachajon, face hair was very slight, or negative, even on men of past middle age. At Sivacá the Alcalde, an elderly man, had a small beard. This is more commonly found among the Indians further in the Highlands. A slightly taller and more heavily boned type here also suggests the Highland influence (figs. 279-280-281-282-283).

Temperamentally, the Bachajon were by far the least pleasant Indians with whom we had to deal. They are drunken, revengeful, and murderous. The murders, usually the sudden outburst of a long-nursed feud, are sometimes so appallingly brutal that one would think them committed by an abnormal or degenerate people.

FIG. 279—Huxumachital, Chis. Bachajon men.

Yet, at the same time, these were the most independent Indians we met, controlling their own lives and way of living, and are left very much alone by the neighbouring Ladinos.

All the Indians are outwardly restrained, at least in the presence of strangers, although an accident, such as a narrow escape, shows them to be volatile and ready to express emotion. At home, they are cheerful, and laugh willingly. In bursts of feeling, as during an uprising, or one of the murders mentioned above, capable of any outrage, ordinarily they are not a cruel people. They showed themselves always responsive to friendly advances on our part.

An excellent discussion of the character of the neighbouring Indians of Guatemala, which applies well to these, by one who has lived long among them, is found in Sapper's "Der Charakter der Mittelamerikanisch Indianer."

Before passing on to the native culture, a little must be said of the outside influences that do so much to m o u l d it — the Church, the Government, and the Hacienda. The first of these occupies a very curious position indeed. While the Indians are ostensibly Christian, as will be shown later, in many ways they are still unconverted. It may be said, briefly, that they acknowledge two antagonistic worships. Of these, the Christian has publicly t h e upper hand. The Priests, accordingly, wield a tremendous influence among them, and did even more so in the past, when supported by the State. Our experience on this trip was that, on the whole, this influence was intelligently and b e n e f i c i a l l y used. To the Priests the Indians confide their troubles, to them they accord the greatest honour on the occasions of their visits to the villages. Yet, at the same time, the Indians conceal from them one-half of their worship, knowing them to be sworn to stamp it out.

Fig. 280—El Encanto, Chis. Bachajon girls.

Fig. 281—El Encanto, Chis. Bachajon man and boy.

The Hacienda system has caused the formation of many small villages, as has been said above. In other cases, as with the Bachajon on the Encanto property, the Indians living at large on the distant lands of the

hacienda, are held liable for a certain amount of labour each year, in lieu of rent. Should one of them fail to do his share, the owners are considered free to arrest him and bring him in. While so working, they are paid, largely in credit at the local store, and fed. On the haciendas with regular village establishments, and in other parts of Mexico, this system has worked smoothly in the past, because the workers found themselves cared and provided for, corn laid up for the future, money or credit ready for festive occasions, and so forth. But the more independent Bachajones seem amply able to take care of themselves, and do not relish working for a ranch miles from their homes, even when they acknowledge its ownership of the jungle in which they dwell.

The payment of labour is seen again in relations of the Indians with the Government, which holds them liable to road-mending and municipal work, as a form of tax. Commonly, crimes are also punished by fines of such work. The system is irregularly applied. For instance, some Indians from Cancuc, who were carrying part of our outfit to San Cristóbal, were held up for two hours road-work at one point. Every Indian that came that way was similarly held. Starr (1902) reports the same experience. In San Cristóbal the right to collect any Indian for labor has been so abused as materially to harm the trade of the town. Quite serious crimes, as long as only committed by one Indian against another, are relatively lightly punished in this manner. It may be said, as far as concerns the tax-*corvée,* that the right of the Indians to go home again before staying away long enough to cause their crops to suffer is generally recognized, and the Indians themselves know when it is time to announce that they must leave. The whole system, however, leads to a certain amount of hard feeling on the Indians' part.

FIG. 282—El Encanto, Chis. Bachajon men.

Interwoven with these specific factors must be considered the Ladino's general attitude towards the Indian. To him, especially the town-dweller, the natives are barbarous in all respects, legiti-

mate butt of any joke, contemptible, and with no inherent rights. The native ceremonies and beliefs, even when closely parallel to their own, are considered mere ignorant superstitions. Only what is definitely Catholic is respected. Small shrines may be desecrated at will. Behind all this, mindful of past uprisings, lies a certain amount of definite fear of the subject people. There are, of course, many exceptions, especially among the more intelligent ranchers who from their patriarchal position or intimate relations have come to understand the natives as human beings.

The effect of all this on the Indian is suspicion of the ruling class, reluctance to impart information, distrust of friendly overtures. If one hails an Indian in the streets of a town, he will frequently run away. Once convinced, however, that an individual actually likes them, and is genuinely interested in them, their response is warm. We received many small favours and acts of friendship in notoriously hostile villages.

Fig. 283—El Real, Chis. Tzeltal girls.

In their culture these people belong to the general type characteristic of all Southern Mexico and at least the nearer parts of Guatemala. They depend primarily upon farming for their livelihood, with corn as the staple crop. Calabashes, melons, beans, tobacco, bananas, and cotton are raised. The farming is carried on by the same wasteful "milpa system" that has been described in Chapter XI, the old Maya method that was eventually responsible for the abandonment of many cities. In the case of the Bachajon, it has already become one cause for deserting their villages. The chief food is dried corn boiled with lime and ground by the women on the stone metates which were described in dealing with the Indians of San Martín Pajapa. It then may be baked on a flat griddle, making tortillas, or kept to drink with water as *posole*. The one universal tool and weapon is the machete, varying in form from tribe to tribe, but always made by Collins & Co., of Hartford—part of one of the most

amazing industries in the world. In addition, most men own smooth-bore flint-lock muskets, a few having progressed to percussion caps. The bow and arrow occurs occasionally as a child's toy.

The Bachajon men dress in cotton clothing, made of material bought in Ocosingo, or, more rarely, of home weave (fig. 284). The shirt is cut without tails, the trousers are of European type save that they tie with a string and have no buttons. Ordinarily they are worn rolled up above the knee. Over the trousers is worn a sash of native weave, red with fringed ends, and often decorated with black and yellow design in lines, sometimes forming a plaid effect. The sash is wound around, crossing in front, then turned back on itself, and the ends tucked under behind, so that they hang down below the shirt (fig. 285).

FIG. 284—El Encanto, Chis. A Bachajon Medicine Man.

Shirts of native weave occasionally have fine coloured lines running through them. The opening, which runs about two-thirds of the way down the front, the cuffs, and the seams at the shoulders may be decorated with very simple stitching. Down the front is a row of small buttons, coloured if possible, not all of which are for use. The most admired arrangement seems to be an alternation, such as red, black, white, repeated, although cases were observed in which no two were alike. These buttons are bought at the stores.

Sandals, *tep,* are ordinarily of leather, a thick sole with simple heel-toe string and loop. The leather is usually bought ready-cut. Formerly they were made of *mahagua* bast wicker-work, in form corresponding to that found in Basket-Maker sites of the South-western United States,* and these are still occasionally woven. The finest specimens are dyed red with a bark. Bast sandals are called *canak* (fig. 286).

*Kidder and Guernsey, 1919, Page 100 et seq.

Their hats are a smaller-brimmed version of the Mexican sombrero, plaited by the men out of straw. The long plait is stitched in a spiral with *ixtle* fibre or hennequen. They may be decorated with coloured ribbons.

Hair is worn short, and banged across the forehead.

The Bachajon women get themselves up a little more gaily, in a dark blue skirt and prettily embroidered blouse. Both are made of materials purchased in the stores. The skirt, *tsekel,* made of the blue cotton from San Cristóbal, is in the form of a cylinder, decorated along the seams, with parti-coloured stitching, red, white, green, and yellow. Naturally, it is a great deal too full at the waist; this fullness is taken up with a twist, which is then tucked in, holding the skirt in position without disaster.

The blouse, *kuul,* is of white cotton, the neck open from shoulder to shoulder, with a short sleeve coming half-way to the elbow. Embroidery of red and blue thread, or an appliqué of stamped tape bought in the stores, outlines the neck and shoulder seams, the edge of the sleeves, and the upper part of the front of the blouse. The bottom is tucked in under the skirt.

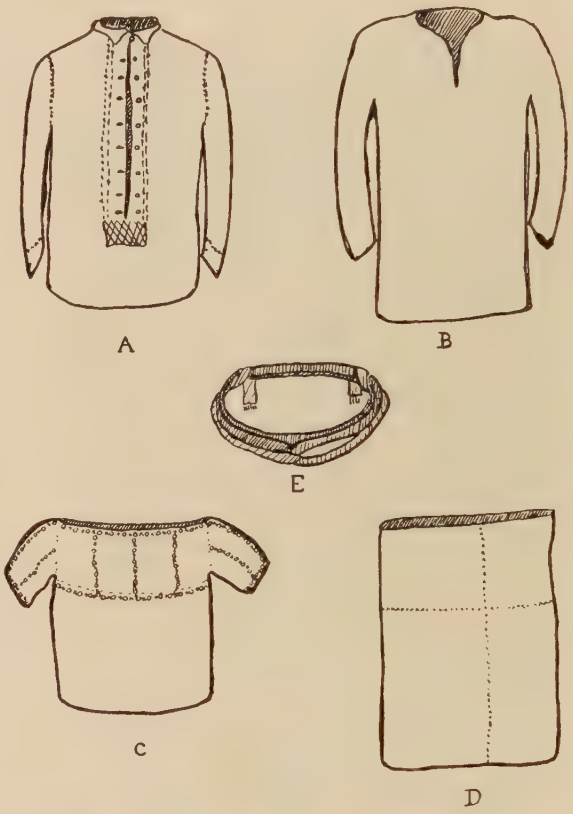


Fig. 285—Costumes, Bachajon and Ocosingo Valley.

A. Shirt, Bachajon.
B. Meh's shirt, Ocosingo Valley.
C. Woman's blouse, Bachajon.
D. Woman's skirt, Bachajon and Ocosingo Valley.
E. Sash.

The women do their hair in one or two braids, which may be decorated with red or yellow ribbon. Ordinarily it is very neatly combed and parted down the middle. Sometimes it is allowed to hang unbraided, but gathered with a pin or ribbon just behind the head.

Curiously enough, the Indians in Ocosingo Valley, although more in contact with the Ladino people, have a less European cos-

tume. The men's shirt is more of a tunic, home woven, without cuffs, collar, or buttons, with a V-neck, and much longer. It may be tucked in under the trousers or worn outside, with the sash over all. Their trousers are sometimes wrapped at the ankles with tape. On the haciendas, a great deal of ordinary European clothing, bought at the local stores, is worn.

The women's dress does not differ from the Bachajon, save for a coarse red sash with yellow stripes, which comes from Comitan.

Houses, *na'*, are of two kinds, the normal, highland type found in Ocosingo Valley and in Bachajon Village itself, and a palm-roofed variant, not unlike the houses of the lowlands, found among the Bachajon in the jungle region (fig. 287).

FIG. 286—El Encanto, Chis. Bark Sandals.

The roof of the normal type, made of a grass thatch laid on in overlapping bundles to a thickness of about twenty centimeters, is called *winikak*. It stands independently of the walls, being supported on cross-beams laid from the main uprights, *kuk'up*. A hip roof is always used for a true dwelling. Often the building is under-cut at one end, so that a small porch is made, on which the door opens.

The walls, *p'ahk*, are of upright sticks stuck in the ground and lashed with lianas, standing without support, separate from the frame. Usually they are thinly plastered with mud. The manner of building the frame itself is described below.

Those of the Bachajon living in the close jungle, where grass is not available, thatch their roofs with palm, when they are called *can*. The leaves are usually of the *chiapai, tcyapai,* or *chichon, ak'te*. Banana leaves are sometimes used for temporary structures, but fray too readily. Owing to the warmer climate, the walls are not plastered, and often part of the house is un-walled. Usually the porch is omitted. A careful study was made of a house of this type about half a mile from the Finca Encanto, which was a good example save that, being in an open space where grass was plentiful, it was grass thatched.

Visiting such a house is not a mere, simple social affair. Here, on a steep-sided and slippery natural hill, lived a family belonging to a notoriously exclusive people. Our hostess seemed suspicious of the visit at first, although one visitor was a "Melicano," one of the pair who had already acquired a good reputation with the Indians, and his guide, Señor Aguilar, was known to be a friend. Men in felt hats and boots seldom visited those houses for good purposes; at the best, they might be expected to make off with a quantity of eggs and tortillas without paying their value—at the worst, the head of the house might be haled away for forced labour, or there might be a fight, the pigs killed, and the little hut set afire. The family consisted of a married couple their small son, and two grown girls. On our first visit the wife alone was there. She was at first sullen and a little frightened, but becoming reassured by degrees, showed herself to be a placid, dignified woman, pleasant, neat, and in many ways an ideal type of the traditional housewife. After we had given medicine to one of the girls for cold, and to the husband for mild fever, with a gaudy chromo of a saint to decorate the family altar, they came to take us for granted, and allowed us to see unfolding the harmonious, dignified family life, with its feeling of unvoiced yet real affection that is so typical of the American Indian where European contact has been slight. The little house, only half walled, and small—about 15 x 13½ feet—was always neat, its dirt floor swept clean, each small posession in its place. There was a faint smell of wood-smoke and earth, with the scent of the rich jungle drifting in, the sound of low-voiced talk, wind in grass, or the grind and thump of the metates, now and then laughter.

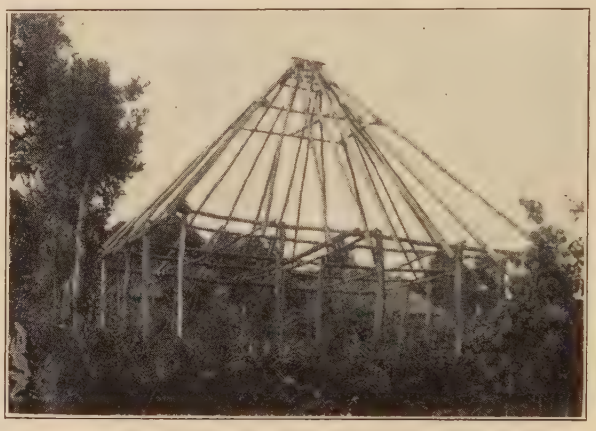


Fig. 287—Cancuc, Chis. Frame of house, illustrating type used in whole area.

The house was a rectangle, 4.90 x 4.20 meters (figs. 288-289), the front of the house being on a short side. The back and slightly less than half of the sides were walled with close-planted, upright poles, without plastering. To wooden beds, *waixyivel,* like low tables, were built into the corners thus framed. Four corner-posts,

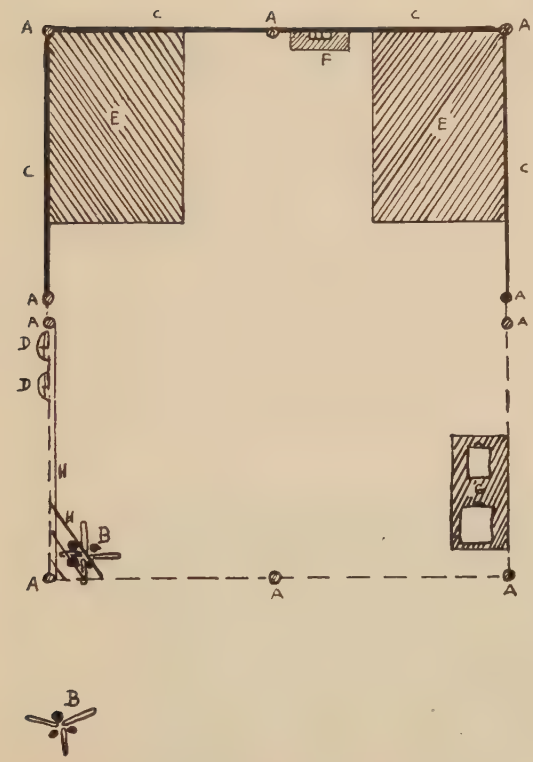


FIG. 288—El Encanto, Chis. Bachajon House, Plan. (Scale 1:100).

A. Uprights, kuk'up.
B. Fire.
C. Wall, p'ahk.
D. Rat Trap.
E. Beds.
F. Altar.
G. Table with Metates.
H. Racks.

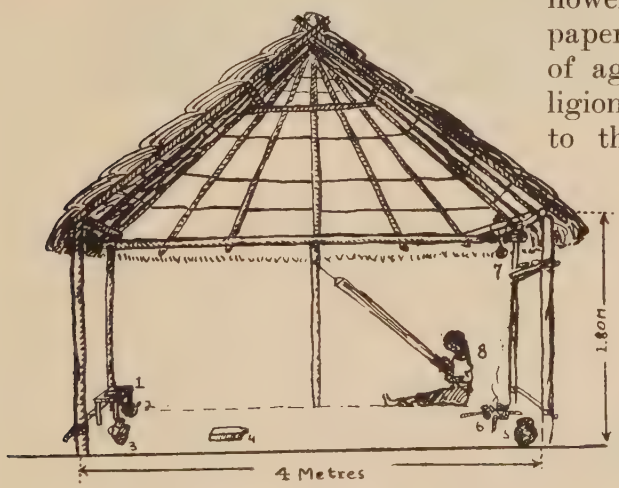


FIG. 289—El Encanto, Chis. Section of Bachajon House.

1. Table, ahk'en, with Metates.
2. Basket of clay, tcavek lum.
3. Tenango water jar, k'ip.
4. Squatting chair, tsamate.
5. Olla, ocom.
6. Fire, kak'.
7. Racks, baxtet, with packages.
8. Woman weaving.

a central front and back post, and two posts close together on each side at the ends of the walls, supported the roof-beams. There were no horizontal members save the plates, following the line of the eaves. The rafters were built up from these direct to the ridge-pole, joined by light cross pieces, or thatching-poles, laid on outside. Near the top they were braced by a purlin of heavy logs on the inside. From floor to eaves it was 1.80 meters, and about the same from eaves to the ridge-pole. The floor was of hard dirt, fairly well levelled, and well swept. We were told that situations on hills, such as this, are commonly chosen to assure drainage, and that there is no orientation.

The altar, a table and a large cross decorated with flowers, pine-tips, and bits of paper, which will be spoken of again when discussing religion, was placed at the back to the right of the middle post. In front, to the right, was the table, *ahk'en,* on which were two metates, or grinding stones. They were legless, one end being raised slightly by propping with stones. The finer one was called *skaltca-tut* ("metate-small"), it was made of a fine, sandy lime-

stone, *ton-al-ha'*, ("water stone"). The other, *skaltca-muk* ("big metate") was made of an igneous stone called *hayáltcak,* brought from San Martín. The *manos,* or smaller stones used for grinding on these, were called *miscabtca* (fig. 290). To the left, opposite this table, was the fire, *kak'*, built of two broken ollas and two small rocks, placed so that the logs could be laid star-fashion between them, and close enough together to support the tortilla griddle or an olla (fig. 291). Outside the house was another fire, with only three stones, on which was drying a basket full of *pinole, tcilim,* a fruit which is mixed with cacao in a form of chocolate. Over the house fireplace racks, *baxtet,* were placed at the level of the eaves across the corner, and along the wall to the middle post, that things hung up there might be protected by the smoke from insects. All these things are indicated in the plan.

Fig. 290—Table with Metates.

A hammock, *aktci,* which we understood was not of native make, hung across the middle of the house. Two woven mats, *pOp,* the Spanish *petate,* lay on the beds. Beside this, the beds, and the table, the only thing that could properly be called furniture was a three-legged stool about 30 centimeters high, *matsumte.* Two mats of pounded bark, or tapa, *bat-te* ("bark tree"), or *bat manil tcahan,* were rolled up in a corner. First comers got the hammock to lie in, others sat on the low "squatting seats," *tsamate,* of which there were three, made each of half a log, peeled, and partially flattened on top, with a handle on one end.

The tortilla griddle was a flat, dish-like pottery affair, about 40 centimeters in diameter. There were five ollas, *ŏcom,* with plain

necks and round bottoms. Two were full of corn and lime for tortillas, just off the fire. A big Tenango jar, *k'ip,* of the kind to be described at that place, was used for water.

A pottery dish, about 7 centimeters across, *tsets,* is commonly offered to guests to wash their hands. It is placed on a pottery stand of an hour-glass shape, about 15 centimeters high, *awaliko* (see fig. 299). The ordinary plates and general vessels are flat gourd dishes, *qai',* about 20 centimeters across. Gourds as well were used for a dipper, *tuts,* and a water-jar, *tsuæ.* Two nets hung from the rack. There were three small baskets, *tutemotc,* and four big ones, *mukulmotc.* Hanging on the wall were a pair of the basket-work sandals mentioned before, and selected ears of corn for seed. The wife's textile outfit, more fully described later, consisted of a spindle, *pětět,*

FIG. 291—Bachajon Fireplace.

with clay whorl, spun in a gourd bowl, *tsima,* cotton, *t'umin,* hanging in leaves, and the loom itself, *holěl.* A sling, made of a forked stick and rubber band with a leather piece to take the clay pellet, *finmutc,* belonged to the small boy. Bananas were drying on the rack. With them were laid, or hanging in packages of leaves, beeswax, *tcavek,* blocks, 20 x 20 x 2 centimeters, for trade purposes, used for making candles, a lump of hard red clay, *baq lum* ("bitter earth"), for washing the hair, and sometimes also eaten, a package of brown loaf sugar, salt, *atsam,* traded down from the Zotzil country, several packages of pimiento pepper, and serpent fat, *junto tcan,* for rubbing on the chest to cure coughs. Under the table was a basket of coarse, blackish-gray clay for making pottery, *tcavek lum* ("beeswax earth"). Five wild boars' jaws and an armadillo's tail

hung in the eaves so that the dogs might see them, to prevent their going away or losing heart. A swizzle stick, *mahas,* about 40 centimeters long, was used for stirring cocoa. It is made by cutting a twig above a joint with four branches. Two rat traps, *yakul,* just outside the hut, were exact models of the larger deadfalls used for jaguars (see fig. 308).

Add to this the clothes on the inhabitants backs, and the man's machete, and you will have a complete list of the worldly possessions, large and small, of a Bachajon family—altogether some forty-four different kinds of things. We assembled as many together as possible, arranging them as for a feast, and placed in the middle the small son of the house, and a little monkey of a boy, Miguel, who accompanied us to run errands (fig. 292).

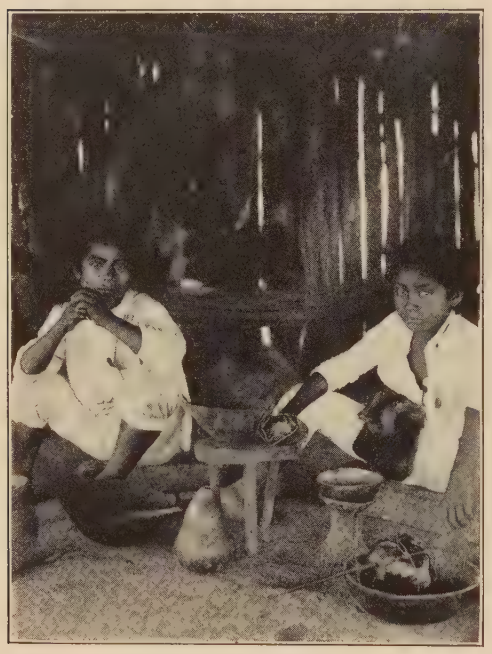


Fig. 292—Bachajon boy guests.

If mud-plastered walls are added to this description, you have a typical Ocosingo Valley house. Change the grass roof to palm, it is the kind to be seen in the jungle country.

At Muxculja (*muckul ha,* "Covered Water"), in the jungle, our Indians built us a trail shelter or hut of the type called in Spanish *champa,* and in Tzeltal *tutna',* "small house." This enabled us to note the manner of building the frame-work and laying on the roof. The kind of *champa* built for us, with an A-roof and gable ends, is called *gwakac na',* "cow house"; the more common type built by the Indians when alone, a simple lean-to, is called *lestce-pat* (should be *lestee-pahk?*) "only one wall."

Our shelter being more than usually pretentious, we could observe most of the steps in building a true house, although, of course, the form here was different and the construction much lighter (figs. 293-294). It was three meters, fifty-one centimeters long by three meters wide, two meters high at the ridge-pole, one at the eaves. It had no walls. From the construction of the outline of the frame to the completed thatching it took fifty minutes for four men, later

only two, working without haste. The only tools used were machetes, which served even for digging the post-holes and for trenching.

The elementary frame consisted in two forked upright posts, *makan-te,* supporting the ridge-pole, *kabaiye-te,* four forked corner posts, *oix,* two plate-poles, *tsañ-te,* and gable-rafters, *sak-te.*

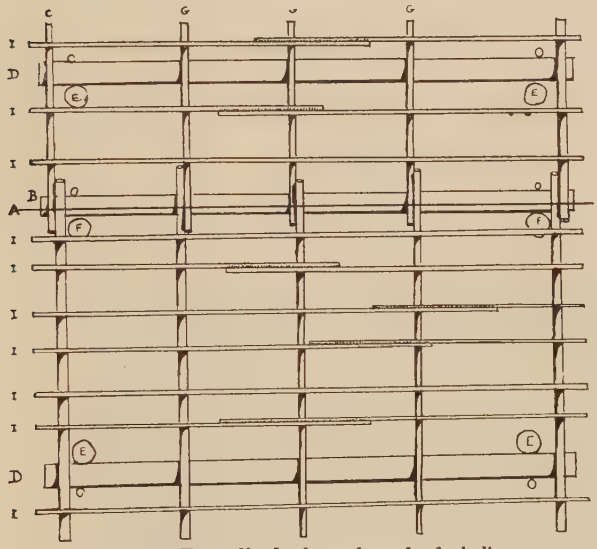


FIG. 293—Formalized plan of roof of shelter.

A. False ridge-pole, kabaiyete.
B. Ridge-pole, kabaiyete.
C. Gable rafters, sakte.
D. Plates, tsañte.
E. Corner posts, oix.
F. Center posts, makante.
G. Rafters, sakte (?).
I. Thatching-poles, hutl.

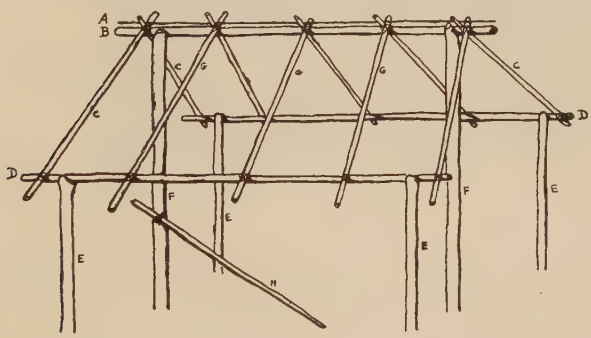


FIG. 294—Sketch of frame of shelter.

A. False ridge-pole, kabaiyete.
B. Ridge-pole. kabaiyete.
C. Gable rafters, sakte.
D. Plates, tsañte.
E. Corner posts, oix.
F. Center posts, makante.
G. Rafters, sakte (?).
H. Staging for work on under side of roof.

Three lighter poles were then laid on each side as rafters, and lashed to the ridge and plates with lianas. Thatching-rods were laid parallel to the ridge-pole across them, they were also lashed with lianas, the vines being laid along the rafters in a spiral, with a criss-cross hitch at each rod. A light false ridge-pole was laid over the true one, resting in the crotches of the crossed gable-rafters. It was said that this was also called *kabaiyete.* Projecting ends of sticks were then trimmed.

Palm-leaves were gathered in bundles of four, tied together with their own base-fronds. These were laid on in the manner of shingles, and the stems tied down to the thatching rods with a spiral running liana similar to that binding the poles. As the leaves are over a meter long, only four rows were needed to cover the long side of the roof, allowing a considerable over-hang, although more would have been used in a permanent dwelling. A row of over-lapping leaves was laid on top of and parallel to the false ridge-pole, bound down, and secured with yet another light stick.

The thatching was done by one man on the roof and another, who stood on a slanting stick tied to one of the center uprights, to help the first pass the liana around.

The angle of the long side not being steep enough, the roof leaked. Two men held the eaves-pole on their shoulders while the rest drove the corner posts in deeper, thus making the angle sharper and improving the shed.

Repairs in thatch are made by laying new bundles of leaves directly over the old, the stems being stitched into the thatch with a liana, and a wooden needle made on the spot.

In all the larger settlements sweat-baths, *pus,* are located (figs. 295-296). The essential element is a cube of wattle thickly plastered

Fig. 295—Tenango, Chis. Sweat House of same type used in Ocosingo Valley.

with mud, about a meter to a meter and a half in all measurements, with a small doorway in one end. The door is of the same construction, or of boards. At Sivacá there were thatched roofs above the baths, but entirely separate from them. Water poured on hot stones is used in them. The purpose appears to be medicinal rather than ceremonial.

All the Highland Indians make vessels of clay, with the possible exception of the Tenejapeños. Among the Bachajon and at Sivacá, the art is not very well developed, only the most common forms being made, without decoration. Their clay, *tcavek lum,* ("bees-wax earth"), is found in the banks of many small streams. It is a

dark gray in colour, with a considerable admixture of fine limestone gravel. As far as could be ascertained, the mixture is worked without other preparation than that of dampening it to a good consistency.

The actual pottery making, *hutsul ya pas ŏcom,* ("I am making a cooking pot"), which is done by the women, was observed at Sivacá. Some of the men of the village had worked for us at Toniná, and they, particularly the heavy set one on the extreme right of the picture (fig. 297), a cheerful and very thirsty fellow, remembered me as a friend. A few poor jokes and a handful of cigarettes won the men over, so that the visit became less an investigation than a triumphal tour, escorted by the whole male population, the Alcalde leading, in and out through the village. It really was very good fun. We wound our way among the huts, seeking the

Fig. 296—Tenango, Chis. Close-up of Sweat House.

shade wherever possible, scuffling up a good deal of dust, now and then tripping over a pig or a dog. Whenever we came to an orange tree, someone would climb it, to come down with a handful of little, green fruits, so poisonous to look at, and so very sweet and refreshing to eat. They dragged out specimens of all their pottery, and at last lead me with some pomp to a house in which a woman was at work. The good wife did not in the least understand this visit, and was not at all sure that she liked it. All the men clamoured at her at once, telling her to come out and be photographed. Finally she brought her clay and unbaked pots, setting all in the sun, still a little bit afraid that this meant some new Ladino imposition. She set to work as though finding some relief from her embarrassment in the occupation.

She formed the base of her pot rapidly in a saucer-like clay form, *hutstahibe* ("rest"). When the bottom was finished, she took it out and laid it on a broad leaf. The work progressed surprisingly quickly and without pause, the potter's hands moving with great speed and precision; the slapping sound as she patted the clay into position was unceasing. The clay was put on in slabs and built upwards, contrary to the coiling technique of the Southwest, the bowl on its leaf being turned rapidly as she worked around the sides. The finishing was done with her hands. The completed bowl was symmetrical, but not very smooth. It was then set in the sun to dry (fig. 298).

Fig. 297—Sivacá, Chis. The men of the town with the Alcalde on the left.

The larger forms are started in a flat, gourd dish, and the *tsets* bowls (see below) in an ordinary drinking gourd. Large tubs, when drying, are protected by leaves covering the rim, and are placed on leaves in the gourd dishes used as forms. The leaves are to prevent their drying too quickly and cracking. When cracks do occur, they are filled in with fresh clay. After enough pots are ready, there is a baking, apparently a community affair. I was told that the pottery was ranged in a line, the pine-fuel being laid up in an A-roof over it, forming a long tunnel, through which the draft ensures a brisk fire. One would expect from such a process that the vessels would be much blackened from contact with the fuel, which was not the case in the new ones that I examined, all having an even

red-gold colour. The baking observed at Amatenango, which is described in the following chapter, was quite different.

The forms made at Sivacá are: (Fig. 299) a tub, *pok'et;* cooking pots or *ollas, ŏcom;* form for making cooking pots, *hutstahibe;* bowl, *tsets;* stand for bowl, *awaliko;* form for making sugar, with a hole in the bottom, *hor'mo;* tortilla griddle, *tsamets;* and a perforated olla for washing corn, *tcistcinaix.*

The Bachajon make most of these also, but the tub and clay *tsets* are rare, a gourd often serving for the latter. The surfaces are less well smoothed. In no case was any attempt at decoration observed. It should be noted in this respect, however, that almost all of these would eventually be quite blackened with smoke.

Fig. 298—Sivacá, Chis. Woman making pottery.

Among the forms shown in the figures, it will be noticed that there is no piece with a markedly contracted neck; such work seems to be beyond their abilities. All through this district the big *cantaras* or water jars are imported from Tenango, and will be discussed in the next chapter.

In general throughout Ocosingo Valley white cloth for men's clothes and women's blouses, made of native cotton, *na'*, as well as the men's sashes, are of local manufacture. Among the Bachajon, cloth is compartively little woven, but sashes are always home made. The coloured thread is usually bought in stores. Weaving is entirely done by the women.

Our Indian hostess at the Encanto house was commissioned to make us a sash; after observing and photographing the process (fig. 300), we bought the loom with the unfinished piece on it. At Sivacá the army of guides produced a woman who was weaving cloth, and another who was just preparing the thread for the loom (fig. 301). The former was very bored and matter-of-fact about the whole pro-

Fig. 299—Sivacá, Chis. Pottery Forms.

A. Ocom.
B. Pok et.
C. Tsamets.
D. Hor'mo.
E. Hutstahibe.
F. Tsets.
G. Awaliko.
H. Tcistcinaix.

ceeding, but the latter, a younger one, was at first frightened. At the first sight of me, she put away all her work. As she spoke no Spanish, I fell back upon a corps of seven or eight interpreters, who all spoke together while I looked as harmless as possible. Then she thought that the Mayor of Ocosingo, or the President of Mexico, or some one had sent for her, and packed her things to travel. At last she understood, and then balked. The men explained to me, with some amusement, that she was ashamed—*"dice que tiene verguenza"* — but finally she consented to pose. The result was a picture worth the while; she herself was a good type of young Indian woman, on her back was slung a pretty though somewhat grimy baby, while an underfed puppy and very small chicken completed the family group. The picture also shows a good example of the squatting-seat mentioned when listing the contents of the Encanto house (see fig. 301).

Fig. 300—El Encanto, Chis. Woman Weaving.

The spindle, *pčtět*, is a stick 35 centimeters long, at the foot of which is a clay whorl, for which no name was given. It is spun with the weighted end resting in a gourd bowl, the upper end held against

the thigh. The spinning is done with the left hand, the right holding and drawing out the thread, *tsahalna'* (fig. 302-d).

The thread is then arranged for the warp on a form called *kumen* (fig. 302-c). This is a pole 1.40 meters long, notched at intervals on one side, and with a groove in one end joining two unnotched sides. In one of the notches, according to the length of thread desired, is placed a cross stick, *tumin-te,* (equals *kumen-te?*), 45 centimeters long. The thread is laid from one end of this cross stick, through the groove, around to the other end of the cross stick, and so, back and forth, until the required number of woof-strands are prepared. The loops around one half of the cross stick are then transferred to the head-stick of the loom, those around the other to the foot-stick, and the woof is ready. At the head end, the loops are braided for the selvage.

FIG. 301—Sivacá, Chis. Woman Winding Thread.

The loom, *holĕl,** has no rigid frame. The woof is stretched over the head and foot-sticks, *wolol-te.* The head-stick is fastened to a beam in the house or to a branch, usually more than a meter above the ground. Before this the weaver sits, with the foot-stick strapped to her by a broad leather strap, *ku'epat,* thus holding the set-up taut (fig. 303). At a little distance below the head-stick, the woof-strands are crossed, those underneath being carried on top, and held in place

*_holĕl_ is one of a large class of words ending in _-al, -ĕl,_ or _-il,_ which are at once verbal nouns and infinitives; e. g. _tal-ĕl,_ to come, or the act of coming, corresonding to the Latin _venire_ and _veniendo. hol-ĕl_ primarily means to weave, here it is also applied to the loom.

by a stick called *wolol-te* at El Encanto, and *ibal-te* at Sivacá. The former name was probably obtained through faulty questioning, as it is also applied to the head and foot-sticks. *Wolol-* may be derived from *hol-,* in which case the word would simply mean "stick for weaving" (*-te,* "stick, tree, wood"), and would be applicable to any part of the loom. Below these two is a heddle, *yolala,* attached by

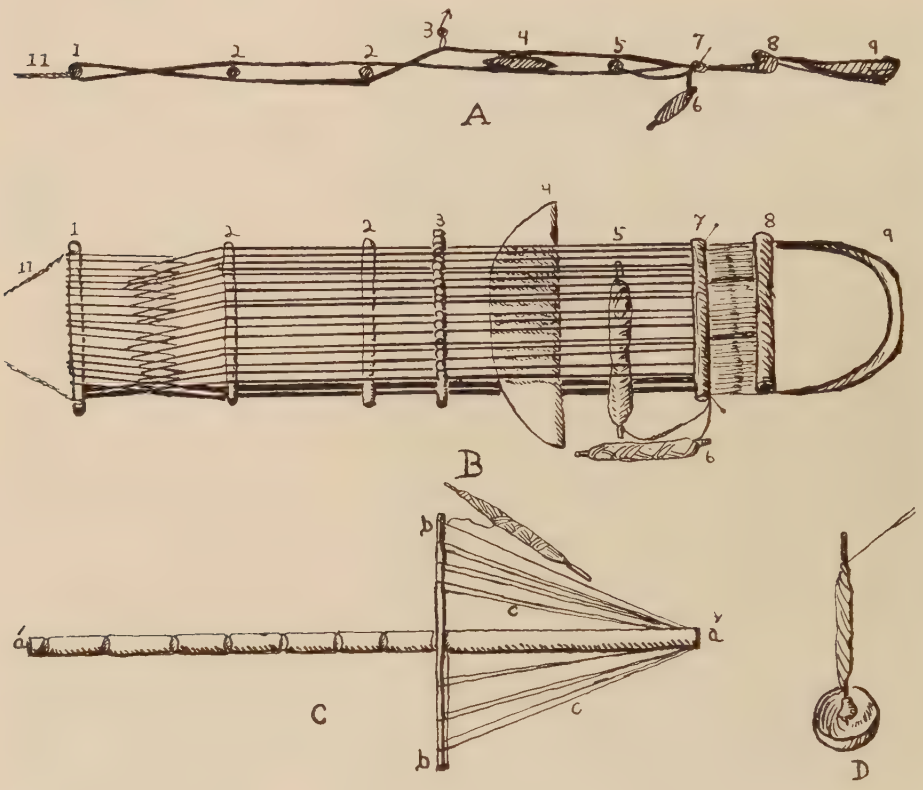


FIG. 302—Weaving Implements.

A. Side view of loom.
1. Wolol-te.
2. Ibal-te.
3. Heddle, yolala.
4. Batten, halawil-te.
5. Shuttle, tiomal.
6. Shuttle, tiomal.
7. Wolol-te.
8. Wolol-te.
9. Ku'epat.
B. Top view of loom.
C. Kumen.
D. Spindle.
a. Notched end.
b. Tumen-te.
c. Warp strands.

cotton loops to the lower set of warp-strings. Below this is sometimes set another separating stick, *tsutuhil.* The pounding batten, *halawil-te,* is inserted at this point. At Sivacá a wooden comb *holaHl,* was also used. As the woven part becomes long, it is rolled up around the foot-stick, thus keeping the work easily within the weaver's reach. That part which is woven but not rolled up is held

stretched flat by a stick with thorns in the end, also said to be called *wolol-te*. The string for tying up the head-stick is called *tsul*. (See fig. 302-A, B).

The different coloured threads are wound on shuttles, which are called *buk'al* when bare, *tiomal* when wound. These are passed back and forth between the warp-strands, with an alternate raising and lowering of the heddle. The threads not in use at the moment are laid parallel to the outermost woof-strand at the selvage. Cross-stripes are thus made with the warp, longitudinal stripes with coloured woof-strands.

The shape of the loom depends upon the article to be woven. A sash-loom is about 40 centimeters wide. A cloth-loom is about 75 centimeters wide, and usually not as long as the sash-loom; the sword is a meter in length. The sword at Sivacá was of a heavy wood, very smooth, and dark with much handling. We were told that the wood was not indigenous, and that such swords were very valuable, as they could not be obtained any more. The one seen in use was borrowed from another woman, who refused to sell it.

Fig. 303—Sivacá, Chis. Woman Weaving.

Cloth for clothes is ordinarily woven plain white, but is sometimes varied with fine lines laid in the woof. The Bachajon weave relatively little cloth, being more accustomed to buy cotton at the stores; their sashes, however, show more variety and use of colour than do those of Ocosingo Valley.

Hats and baskets, *mOc*, are made by the men. The former have already been described.

Baskets are woven on a frame of heavy splints laid crossing each other at the center. These are bent upward, leaving a sufficient length flat to provide for the bottom. The warp of reeds is then woven in and out, in a simple wicker-work, around the bottom and sides. At the top the splints are doubled over and tucked down under the strands. The rim is formed of two strands twisted around each other between each splint. The work is not very fine, there

being an average of only three strands to a centimeter, with the splints about three centimeters apart. Ordinarily the widest part of the basket is at the rim, but a very small basket, *tutemOtc,* was observed, in which the greater diameter was about half-way up the side. The weave was the same. The standard large size is 23 centimeters high, 36 centimeters diameter at the rim, and 13 at the base (fig. 304).

The men also make the nets, *tcotcaH,* which are used, suspended from one shoulder, as a pocket, or, slung from a tump-line, to carry small burdens. They are made of hennequen or ixtla cord. The mouth is an extra heavy string, from which the woven part of the net hangs (fig. 305). The method of laying the cord was observed

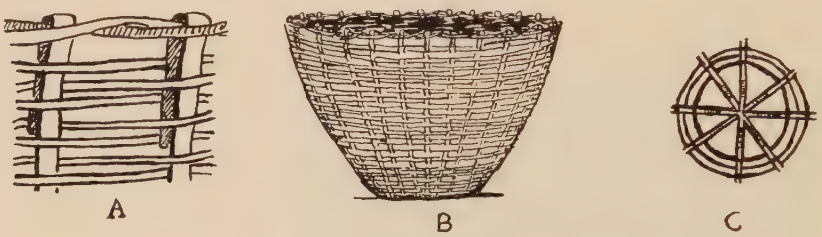


FIG. 304—Basketry. A. Detail of weave showing finish of rim.
B. Basket, height 23 c.m.
C. Arrangement of splints at the bottom.

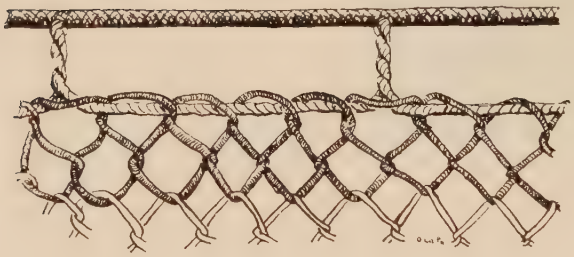


FIG. 305—Detail of Net.

FIG. 306—Frame for weaving net.

at Cancuc. The istla threads are held in the crotch of the left knee, and the cord is wound on the thigh with a flat-hand, rubbing motion. A bundle of threads laid parallel to each other, is taken by the middle and rolled into the already made cord, forming two strands. When the strands are ready, they are laid together with a reverse-stroke of the hand on the thigh. The net is woven with a deer-horn needle, *muk,* on a frame, *tiaH,* consisting of a board about 18 centimeters long with an upright stick at each end (fig. 306). The actual weaving was not observed.

Considering that their only tools are their machetes, and an occasional cheap pocket knife, the wood-working done by the men is

remarkable. They make combs of one piece of wood, averaging 15 centimeters long, 8 wide, by 4 millimeters thick. The teeth are cut out of one of the long sides, running back less than half-way into the body of the piece. These teeth may be as fine as two in three millimeters, or as coarse as two in five millimeters; sometimes they are graded. The back is slightly arched. On the ends a piece of wood is left uncut, usually about four millimeters wide. The shape is not unlike the small Japanese combs to be found in most of our curio stores. The best examples are made from mahogany, chosen with a nice feeling for the effect of the grain. They are not worn, but used for combing the hair.

They make violins which are small copies of the European type. The instrument and bow are known by their Spanish names, *violina* and *arcilla.* The body is about 26 centimeters in greatest length and width; the neck, *tsutsuH-te,* projects about 50 centimeters. Save for a decoration of wavy lines on the back, the violin looks like a cheap toy fiddle. The strings, *tcucuix,* are of *mico de noche* (night-walking lemur) gut, save the G-string, which is of the usual type, bought in the towns. The bow-strings are of horse-hair treated with rosin. The tone is poor, lacking resonance.

One tobacco pipe, *bum,* was observed, which was a remarkable piece of whittling (fig. 307). It was about 14 centimeters long, made of one piece of mahogany, and apparently modeled after the American corn-cobs occasionally seen among the Ladinos. The bowl was roughly rounded, with a flat bottom. The stem was round, with a step in it at the middle, in imitation of the step in the mouth-piece of an ordinary pipe. The tube had been hollowed out with a hot wire. The tin-foil cap over the cork of a *Habanero* bottle had been hammered onto the base of the bowl, and two strips of tin-foil laid around the stem, each held on with a brad. It may be mentioned that the mahogany coloured prettily from handling and smoking, and that the flavour was sweet.

Fig. 307—Pipe.

Stools, with three legs let into a single, round piece, and rather rickety tables on the same principle, but four-legged, are made by the men, as well as the squatting-seats mentioned in describing the house.

Game furnishes an important part of the Indian's food supply. Wild boar, deer, howler monkey, *faisan, cojolite,* dove, and quail are hunted for food. The various large cats, alligator, lemurs, and many of the larger snakes are sought for their hides, which form a considerable article of trade. The chief weapon used in hunting is

the muzzle-loading smooth-bore gun, really a shot-gun, usually loaded with shot. Both flint-locks and percussion caps are known, and occasionally match-locks are made by the Indians themselves, the barrels being bought in the towns, or taken from old guns. Powder is carried in a cow's horn, which sometimes also serves as a flask.

Wild boar is sometimes hunted with spears, *mojara,* made of sticks with points hardened in the fire, although iron-headed spears are known, having been used in the Uprising of 1868. The latter form, however, does not appear to be made at present. Spears left over from the Uprising are highly valued and cannot be bought. That they were brought out of hiding during a period of unrest at Bachajon in 1915 is considered one of the proofs that a real revolt was planned at that time.

Dogs take part in the chase, their use being connected with some curious superstitions. It is a common practice in Mexico to cut a

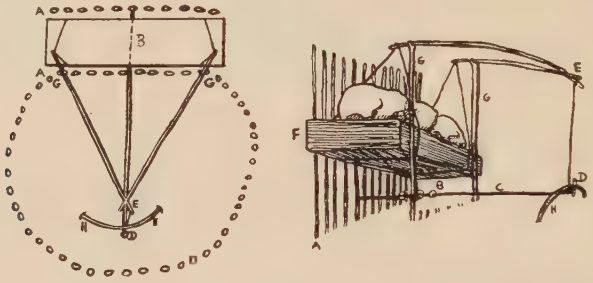


Fig. 308—Deadfall, from a rat trap at El Encanto, Chis.
A. Plan. B. Sketch of essential parts.

piece off a dog's ear and keep it in the house if he shows a tendency to roam, or to go hunting alone. If he will not follow a trail, a similar piece is cut off and thrown on it. The Indians keep jaw-bones or other trophies of animals killed with the dogs' help hung in a conspicuous place under the eaves of the house; the object being to remind the dogs of their achievements, and to keep them from losing heart during a period of no hunting.

Birds, as well as being hunted, are caught with snares and with limed twigs.

Dead-falls, *yakul,* are used to trap animals, both for game, and to protect the fields. They are substantially all of one pattern, the drawing for which was taken from a rat-trap in the house at El Encanto (fig. 308). The deadfall consists essentially of a log, F, weighted with stones, held suspended in two slings, which hang from the ends of two sticks, EE, resting over two forked uprights, GG. The two sticks cross each other at the further end, where they are

tied by a string carried down to an arched stick, H, stuck in the ground. This string, by holding down the far ends, counterbalances the weight of the fall at the other ends. At the end of the string the cross-stick, D, holds it against the arch; it, in turn, is held by the trigger, C, one end of which braces against it, the other end against the far side of the trap, passing under the deadfall. A circular fence of sticks prevents an animal from getting at the outer part of the trap. A straight fence on the other side of the fall necessitates its entering through the entrance, AA, to get at the bait, B, on the trigger. The animal dislodges the trigger, releasing D and with it the string. The outer ends of the sticks fly up, and the weighted log falls. In the rat trap, the log and stones came to at least three kilograms, arranged to fall through a space of about ten centimeters, other traps being in proportion.

When hunting with a gun, a red fruit called *ahoon* is frequently rubbed on the shot, and *palma bendita, tcul-tĕc-wil can,* the palm used in church decorations, is used for the wad. This prevents the bullet "from getting tired" before it reaches its mark.

Meat obtained while hunting, if it cannot be carried immediately to the house, is dried on a rack, *tcax.*

The primary method of carrying goods of all kinds is by the tump-line, for which, as has been said in the discussion of physical and other characteristics, these people are very well adapted. The tump-line, *pak,* is a broad strip of inner bark, or of cow-hide. For their ordinary uses, this is a single strip, the ends being attached to a net (q. v.) of their own manufacture. When a package too bulky for the net is carried, a long strap is used with the ends tied together. This is looped through itself, around the package, so that it hangs in two slings. Additional straps may be attached to the line where it passes over the ears, to wrap around the sides of the burden. A flat piece of cowhide, *tcokHax,* is worn against the back, to protect the carrier from the chafing of his load. Both men and women use the tump-line, the carrying of objects on the head being unusual.

Formerly the Indians of this district are said to have owned a good many mules and horses for packing, which they lost during the recent political disturbances. Many of them know something about packing. At present, however, few if any own cattle of any kind.

The highland rivers do not, on the whole, lend themselves to water travel, although the Bachajon territory reaches to the Bascan, Tulija, and other more amenable water-ways. Canoes are known only as introductions of German or Ladino ranchers. The natives use a

raft, *poi,* to cross rivers or make very short trips. The specimen observed at *Hol-ha'* (Head of the Water), was made of five cork logs averaging 22 centimeters in diameter and 3.25 meters long, held together by two cross-sticks lashed on with lianas. There was some space between each log, the width of the raft being 1.25 meters. It had a definite bow and stern, the logs at the forward end being cut to an edge, "to cut the water." These rafts are propelled by a pole, preferably of mahogany, the one observed being 2.50 meters long. They are moored by thrusting the pole through a crack between two of the logs, into the bottom of the stream.

As one would expect, the old, complicated organization of priests and rulers, the aristocracy of pre-Conquest days, has been utterly swept away. Today, in their social organization, one may trace a little of the feeling of the old times, but the system is the creature of Spanish contact. On the haciendas there are no native officials save those who preside over the fiestas. The owner of the hacienda maintains a patriarchal sway over his workmen, governing them in every respect. Among the village tribes at Bachajon and Sivacá life is still influenced by the obligation to work for the government or the ranchers, although the independent nature of the Indians has won for them a good deal of self-government. Those of the Bachajon living on land belonging to ranches find themselves under a dual system, although the scattered location of their dwellings, deep in the jungles, minimizes the power of the Ladinos.

The tribes are very different from those of North America. From our brief observation, it appears as though there was none of that deep feeling of loyalty towards the group, of essential, almost mystic unity with the other members that characterizes our own Indians. Similar customs, common interest, and geographical proximity hold each Tzeltal group together; bonds that are easily broken. Should an outsider attack the common weal by seizure of land or by any other infringements, he will find the tribe solidly united against him, but at the same time it may be, and often is divided within itself by many quarrels. The Bachajon carry out long feuds between families and individuals in the form of occasional murders. These have their origin in delayed retribution for some wrong received by one party from the other, for which, in turn, there is retaliation, and so on indefinitely.

For instance, the murder committed while we were at Encanto was the climax of a long-nursed grudge, and almost immediately afterwards there were indications that from that fight would arise many others. Occasional attacks on ranchers are also usually carried

out by a small group bearing a grudge, although in this case the tribe as a whole stands more solidly back of the offenders.

The Bachajon exhibit internal dissension and strife to an unusual degree. There are many small, outlying sub-groups, some of which are more or less openly at war with the main body. In the description of Zona Sala oil camp (Chapter VIII) something has already been said of the settlement there of men driven away on account of the misbehaviour. They still call themselves Bachajon and maintain some slight intercourse with the tribe, although they are quite inimical in their attitude towards Indians passing through on the way to Palenque. There are other such settlements in different parts of the jungle, although these, having most recently split off, are the most hostile.

What group loyalty the Bachajon have centers around the deserted village that bears their name. It was described at the beginning of this chapter. Founded under compulsion, deserted whenever possible, its church and Cabildo in ruins, none the less it is their focal point, jealously guarded from intrusion. These Indians have had the same experience as our own; the European comes first as a visitor, then a few settle for trade, then comes a host in their footsteps, until soon there is no place for the Indian, and he finds himself an intruder in his own home. Against this sequence of events, so common in our history, the Bachajon protect their land by an attitude of unremitting hostility. Travellers may pass through, but no trader may set up even a lean-to bower under which to display his wares, save during the few days of their main fiestas, although it would be a great convenience for them to have a store nearer than Ocosingo.

The destruction of the Spanish-built church and Cabildo, with the substitution for them of native edifices, is curious. The feeling probably is that when they do congregate in their capital for a fiesta, they do not wish to be confronted by evidences of alien domination.

The strongest actual unit is that of the individual family, the man, his wife, and children. Indians who are forced, for one reason or another, to go into hiding in the jungle, will run great risks to return and fetch their wives and children. Even beyond this smallest group there is a little feeling, a man's relatives by marriage or blood often joining to support him in a feud, or to revenge a wrong done him. Similarly, the relatives of the individual who committed the wrong are held in some degree liable to punishment, although there is no formal rule of collective responsibility, the action taken depending largely on individual inclination.

Bachajon and Sivacá are governed through native officials selected from among the men of repute in the tribe by the Mexican Government, more or less in accordance with the Indians' wishes. They serve for definite terms, usually two years, and may be reappointed. Bachajon Village, organized when the whole tribe was concentrated there, has two complete administrations, each with a president, council, and secretary. At Sivacá the only official is the *alcalde,* who carries as insignia a staff, *barra,* 1.50 meters long, decorated with a double cross in black at the head. The secretaries are chosen primarily for literacy; the others are older men of influence in the tribe. The great respect with which they are treated by the natives indicates that the selections accord fairly well with those they would make themselves.

Each group is in the charge of a resident Mexican official called the *Maestro,* corresponding to our Reservation Agent. He is appointed by the Presidente Municipal of the local government. He is paid with taxes collected by himself from the Indians in produce or money, to which he adds commissions obtained from his services as a labour agent, the profits of trade in a few staples, and receipts from travelers, for whom his house is the official guest-house.

Ordinarily the *Maestro* does not give his orders directly to the Indians, but works through the native president, who may openly oppose him if he see fit, though he is in some degree bound to obey. The influence and power of the *Maestro* depends upon the individual, and on the temper of the Indians under him. In extreme cases he will send for troops, a measure greatly dreaded, as the soldiers, once arrived, may stay indefinitely, helping themselves freely to the pigs and chickens of the natives, and generally making themselves objectionable.

In addition to those appointed by the Government, the Indians accord obedience and respect to a considerable body of purely native officials. The only ones fulfilling a civic function are the class known as *Principales,* who exist chiefly among the Bachajon. They are men who know how to read and write Spanish, living in places more available to the outlying Indians than the Secretaries at Bachajon Village, and are usually men in whom confidence is reposed. Although they hold their position without official selection, but by general consent, they are recognized by the Mexicans with whom they deal as holding a sort of power of attorney for their people. They examine and sign written documents, and compose communications from the Indians to the Government. Through this they gain an influence with which, if they be men of force, they may become leaders of real power in their own districts. A *Principale* whom we met at El Encanto, where he had come in to buy salt, was

the informal chief of one of the semi-separated, turbulent groups already described. He was a well-built, square-faced, sullen yet cunning looking fellow, with a long scar from a machete cut across one cheek, and credited with a number of murders.

The shamans or medicine-men, *poci',* although primarily doctors, have a quasi-priestly status, the result of the intimate relation of prayer and healing, of which more will be said later. They are honored accordingly as holy men, as well as for the power conferred by their knowledge of medicine and charms. A shaman obtains his position by some years of study under another, who teaches him both medicines and prayers. His repute largely depends upon the results of his practice.

Certain older men are selected annually to have charge of the fiestas, or saint's day celebrations; they have charge of all preparations and of the conduct of the fiesta, as well as being usually responsible for the care of the various sacred properties during the year. These officers exist in the hacienda groups as well as in the tribes. At the Finca Tecojá, where a fiesta was observed in progress, they were an amiable pair of rather drunken old men, known as *Caporales,* and at most places, in common with other officers holding posts of Spanish derivation, they were known by Spanish names. Interestingly enough, in the villages with the Governmental organization described above, they rarely coincide with the Government appointees, although this may be partly due to the fact that they are usually selected from among the oldest men. In Guatemala these semi-church officers often are a mask for tribal positions of real power, as was found to be the case with the *tcimañ* of Jacaltenango, who will be described in writing of that place (Chapter XIX). Here their influence and prestige was relatively slight, save during the period when their duties placed them in charge.

Almost the only trace of pre-Conquest feeling is to be found in the great reverence shown towards all shamans and Government appointees. An ordinary Indian will offer food, drink, or tobacco to all men of authority present before taking anything himself, even though it means the consumption, for instance, of almost all of a bottle of *aguardiente* before he gets any at all. We saw a chief at Tenango, where the same system prevails, take a lighted cigar from an Indian's mouth, giving him instead some unrolled tobacco leaves. When first coming into the presence of such men, or passing them on the road, an Indian will take off his hat, bowing deeply; the chief or shaman touches the Indian's forehead, and he goes on. This is performed with grace and dignity. It is known as *k'ol-tanup,* "head giving" (*k'ol* from *hol,* head). Instances were observed of thus

"giving the head" to certain elder women, but the reason could not be ascertained.

Marriage is an economic and social affair, apparently free of religious significance. Don Arturo Tovilla of Cacate-el, gave us a description of the manner of seeking a wife, which is here paraphrased. It will be seen that the importance, ceremonially, centers on the contract with the parents, while the actual joining in marriage is not stressed.

The boy's father goes with the boy to the girl's house, both dressed in their best clothes, and carrying a gift of three bottles (pints) of aguardiente "and some animal." His father tells the girl's father that his son wishes to marry the daughter; to which the answer is to call the girl and ask her if she likes him. She says nothing, but keeps on scratching the wall with her finger and the floor with her toe, thereby indicating that she likes the boy, while showing the proper maidenly modesty. The latter gives her a coloured handkerchief, pearl beads, etc., with which the contract is sealed.

The boy is obligated to bring to her house what the father may ask, such as corn, beans, aguardiente, as well as to help in the work for a year. He makes a social visit each Sunday, which the girl must receive. At the end of the time appointed by the parents, he takes her to his house.

If the girl does not signify her consent in the manner described, the match does not take place.

When the parents of one or both parties do not countenance the match, it may happen that the children, taking the law into their own hands, run away. The procedure in this case has become formalized so that, while unpleasant enough to act as a deterrent, it recognizes this as a regular manner of marrying. This description also is paraphrased from Señor Tovilla.

When the parents forbid, but both children desire the match, after the boy has gone to the girl's house and been refused, his obligation of respect is ended. He builds a house in a retired place in the jungle. He and the girl meet to make their plans where she goes to get water, for which purpose she may often choose a spring a kilometer or more from her house. At an appointed time, they run away.

When he has carried her off and hidden her, his parents must go and apologize to hers. The girl's father tells the boy's not to leave before being punished. He, however, finds and brings in the couple, who kneel before the girl's parents. The boy's shirt is taken off, and

he is whipped by the girl's father for a thief. The girl is stripped to the waist and whipped by her mother. With this the marriage is legalized. As the first act of their true married life, the girl makes posole and offers it to her parents. The boy is under obligation to bring presents of bread, chocolate, aguardiente, etc., to his parents-in-law.

There are no formal restrictions of marriage, but the Church exercises a general influence against wedding brother and sister, cousins, or other relatives forbidden by Christian doctrine. In this, owing to the disposition of the Indians, and to the purely tribal character of marriage, which is not regarded by them as a religious or governmental matter, the Church is only partially successful. Informal unions actually do occur between brother and sister, apparently without any ceremony, the pair merely continuing to live together, their family relationship slowly changing into that of a married couple. That such a wife's status has some regularity in their eyes is shown by the fact that she has the same position in funeral rites as an ordinary wife.

It is probably due to the negative influence of the Church that the various important crises in the life of an individual, ordinarily marked by such colourful ceremonies among primitive people, here are distinguished by very little of ritualistic observance. For description of the main events in the life course, we were again dependent on Señor Tovilla, whose information, given with little change below, checked entirely with the result of other inquiries. The funeral ceremonies were observed at first hand, after the fight described at El Encanto; for them, accordingly, I have used my own notes.

When a woman is about to give birth to a child, a midwife—an older woman with some knowledge of herbs—is summoned. A few days before parturition, the woman is carefully tended by the midwife, well fed with choice food, and provided with a little rum. At the moment of giving birth, the midwife prays that the child may be brought forth happily. The mother kneels, and the midwife prepares to receive the child with a new cloth. Meantime the father is told to stay outside the house, or may be allowed to help in minor matters.

It is said that at Tenejapa the women go out into the woods to give birth untended, coming back with the child.

The baby is given Christian baptism.

A child's soul is considered to be particularly delicate, and therefore liable to magic influence. If the people of the house must go

away, leaving it alone, an ear of yellow corn is left with it, that its soul may not be stolen. There is an interesting parallel here with the ear of corn as a "ceremonial mother" in the Southwestern United States. If somebody expresses too strong admiration of a child, fire must be passed near it, or spittle rubbed over its forehead; otherwise the baby will become ill. Infants are particularly susceptible to the evil eye. To cure one that has been thus cursed, a female shaman is summoned, who passes a whole egg all over the baby's body. This is then opened, and the evil eye will be seen (by the shaman) in the yolk of the egg. They throw the egg into the river, or bury it in a secret place. Almost this same belief was found in Chontal of Tabasco. (Customs of San Fernando, Chapter VI, Volume I).

Children's education is simple and direct. As soon as a boy is old enough to work at all—at about five years of age—he is given a worn-down machete and set to cutting and hauling wood. From then on, following his father, he learns the man's duties. Girls are started with a miniature metate, grinding corn.

The Government maintains some public schools, such as at Bachajon Village, in which a few children learn to read and write, but in general great difficulty is found in obtaining scholars. As soon as they are old enough to study, they are strong enough to be of material help in the house and the farm; the parents do not like to relinquish what represents the interest on the investment of the price paid by the father for marriage, and the expense of the children's early years. Under the present administration, however, efforts to educate the Indians are being pushed as never before.

Puberty is attended by no observances of any kind. Marriage, which comes fairly early, has been previously described.

At death the ceremonial side is greatly emphasized. The funeral rites combine the idea of mourning with a general belief that the soul of the departed lingers for a brief time about his former domicile. When possible, the house of the deceased is abandoned for a short time, during which period, if any small animal is observed about the house, particularly at night, it is supposed to be his soul. No particular powers are ascribed to the soul, as far as could be found out, but it is considered poor company.

As it happened, a man was killed while we were at the Finca Encanto, whose funeral rites we could observe. His wife began mourning for him almost immediately—this being in the middle of the afternoon. His body was taken to another house, neighbour to his own. The true ceremonies began after nightfall. Accompanied by Lazaro and Señor Aguilar, the writer went up with a gift of

candles for the wife; we had previously sent flowers. The family, being poor, were very glad of our contribution. When we arrived the scene was lighted by one tall candle and the glow of a low fire, mostly coals, with a few weak flames flickering across it. The body was laid out, wrapped in all its clothes and then in a mat bound with cords, forming a bundle more or less resembling a mummy. At its head was a cross, on top of which flickered the solitary candle. The family and neighbours were crowded into the house, the women sitting on the floor about the body, their heads covered with black shawls; behind them the men made themselves as comfortable as possible. They brought such musical instruments as they possessed. The family provided rum. At the dead man's feet squatted his wife, her face almost completely covered by the black shawl.

The wife rocked to and fro, from a squatting to a kneeling position, alternately laying her clasped hands on the pall, and holding them to her eyes, keening. She gasped out a few broken words, half choked with sobs, then let her speech rise higher and higher, crescendo, to a wail that broke off with a half-sob, half-gasp. Thus she went on, falling into a chanting rhythm, which the other women joined spasmodically. The men talked in low tones, and played faintly on their instruments, more or less in time with her. The packed place was very warm, and had the acrid, smoky smell of many Indians.

Later, drinking went on, and the visitors danced, as at any ceremonial. The keening was maintained all night.

When we brought our candles, the woman stopped her mourning long enough to hustle the men, who were slow in setting them on the cross, then she took up again.

The body may be interred the following day in a burying-ground, or in the floor of the house. The former custom, observed at El Encanto, is probably due to outside influence. In that case, the body was carried on a plank by four men. A few more men came along to help, and the wife and three or four women followed. The men wore clean clothes, and had left their machetes behind. Only the wife wore a black shawl, which must have been hot in the sun at high noon, when the procession took place. She continued her keening, and carried a lighted candle. Whenever the pall-bearers laid the body down to rest, she fanned flies away with the dead man's hat.

The grave was well dug, about five feet deep, without regard for orientation. After being lowered into it, the ropes binding the body were cut, that the dead man might rise freely on judgment day. Lumps of dirt and rocks were laid on to hold the mat in place.

While this went on, all the women joined with the wife in keening, forming a sort of harmony. A cross was placed at the head. After the grave had been filled in, the party returned to the house where the mourning was carried on in all respects as on the previous night.

The wake is called *kanantaiy-el tca-vinik,* "to watch over (the) dead man." For the second ceremony, the only name obtained was *van-tik pas yan k'in,* "let us go to make another ceremony."

It should be noted that in the case observed, the wife maintained her keening, without apparent cease, from before sunset of one day, through the next day and until the morning following. She was audible, on her high notes, at least five hundred yards away; this was no mean feat of endurance.

On the trail to Bachajon Village, several ruined houses were observed with burials in the floor. The graves were outlined by planks set into the ground vertically. We were told that the dead were buried under their beds, and that a house was abandoned after the number of burials came to be "too much for them." This latter statement is borne out by the frequent occurrence of as many as three graves in one house, occupying most of the floor.

In common with most of the Indians of Middle America, the religion of the Tzeltal is a mixture of Catholic Christianity with considerable emphasis on saint-worship, and of their old cults. The surface presents fairly pure Christianity, but further examination shows that the deeper religious current is of an older form, altered by Christian contact. The Indians' attitude towards the newer religion is interestingly stated by Sapper (1925) who says:

"The relation of the Christian God to the remaining pagan gods may briefly be explained by the fact that the Christian God has a higher rank, but, as a foreigner, he cares less for the Indians and does not understand their petty troubles and intimate affairs. This is why the Indian turns to his old gods first in matters of everyday life, as for example when the maize is sown, and at harvest time . . ."

The same idea was brought out in the Zotzil uprising of 1868, when a boy was crucified to provide the Indians with a saviour of their own race, who would help them.*

Each village or ranch-settlement has and observes its Saint's Day, the celebration centering around the church, and whenever possible a Priest attends and gives Mass. Other fiestas are held on minor Saint's Days, or events such as the coming of a Priest to the

*Pineda, 1888, Page 77.

village. In common with all ceremonial celebrations, these fiestas are called *k'in,* the old Maya word for "sun." Even non-Christian elements appear in the fiestas. The Bachajon call their chief fiesta, St. Jerome's Day, May 13th, *kan-k'in,* "yellow sun," an old Maya month name.

On many points one cannot say whether the ritual be Christian or not; the use of the cross is such a point. The Mayas had a cross,* the worship of which was encouraged by the early Padres, while teaching the Indians to associate with it Christian ideas. Certain it is that crosses now play a greater part in Indian than in Ladino religion. They are maintained on the roads at partings of the way and crests of hills, and they are used in ceremonies that have little or nothing to do with the Church. Crosses by the road are usually covered with offerings of flowers and pine tips; in the houses they are decorated with any bits of bright paper, flowers, or pictures that can be obtained. The house-altars seem to be more truly Christian, as is indicated by the names, *altar, tcun tat-ik,* "altar of our Holy Father," and *cruz tcun tat-ik,* "cross of our Holy Father," in both of which the most important word is Spanish. At the house by El Encanto we had a chance to observe one such altar at leisure (fig. 309). It consisted of a neatly made cross, 75 centimeters high, standing above a small and rickety table. About the cross were fir branches, brought down from the highlands, and it was hung with cacao beans and small yellow gourds. A revenue stamp pasted across it gave a touch of more vivid green. The wall behind was entirely covered by a sheet of an old news-

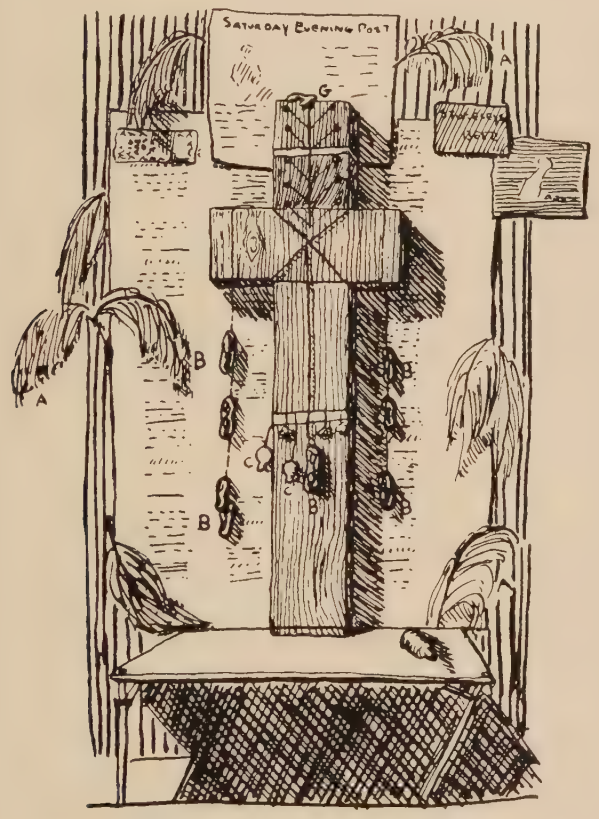


Fig. 309—El Encanto, Chis. Altar in House.

*Cf. Tozzer, 1907, Page 151 ff.

paper, brightened with colour added by a cigarette package, a label from a tin of beets in a deep red, a joke in German about the fall of the mark, of which the prevailing tone was pure viridian, and a page of advertising from the Saturday Evening Post. We gave this family a chromo of a saint, which was immediately framed with a sort of wooden box, and set up beside the cross. The table below was used for laying odds and ends on, such as the spindle and a couple of empty aguardiente bottles.

Incense, *pom,* and candles, both extensively used by the Indians today, had a place in the old Maya ritual similar to that of the Catholic Church.

The Priest is an important figure to the Indians. They come to him with respect to tell him their troubles, and receive him into their villages with rejoicing. At the same time, there is no doubt that they deliberately hoodwink him as to the orthodoxy of their faith.

Although it includes several non-Christian elements, a description of the fiesta observed at Tecojá will give a fair idea of the Tzeltal's church observances. Tecojá ranch has a village of about twenty houses attached to it. The fiesta was held on the twenty-second and twenty-third of June. By custom, the ranch had to allow the Indians this time off, as well as accepting the lowered efficiency on the following "cold grey dawn of the morning after." The owners had, moreover, to provide the rum for the whole celebration, in this case, two demi-johns.

The ranch chapel was thrown open and decorated with fir branches and streamers. The proceedings were in charge of two older men, called *caporales,* who were distinguished by a cross-belting of red handkerchiefs. One house was set aside for the celebrations, in front of which was a table and three triangular, crimson banners with gold edges. By these drumming and flute-playing went on irregularly. Here was the official dispensary for rum, which was given out by the *caporales.* Inside the house, a palm-thatched one with stick walls, about fifteen feet square, some thirty Indians, men and women, were squatting against the walls. There was an orchestra of a guitar and a mouth-organ, occasionally augmented by the piper, who would wander in from outside. This individual, although most amazingly drunk, managed to maintain his musical ability until he fell asleep. The tune they played was like a rather wistful jig, but the time was lively. To this four couples danced, the men facing the women, with a shuffling step not unlike waltzing. They kept very much in one place, but occasionally changed sides. The dancing was evidently a serious affair. This type is called in Spanish *zapatea,* in Tzeltal, *ahk'Out.*

The performance continued until late that night and began again the next morning. Later in the day the banners were carried to the chapel in procession, with music, and deposited by the altar. The *caporales* led in prayer. The fiesta went on again in the evening.

Christian forms are applied to or mixed with non-Christian rites and ideas to some extent, a confusion resembling the appeal to both saints and native gods in prayer among tribes of Guatemala* and British Honduras.† Much of Christianity is adapted to conform to old, fundamental native concepts.

In the church at Bachajon Village there are fourteen saints beside the tribal patron, St. Jerome. These others each have a special care, as the cornfield, hunting, the rivers, etc., and are prayed to for help in their particular provinces. They are given gifts of cloth, usually red or blue, which is draped about them. Many of them duplicate the functions of non-Christian "guardians," to be described below.

In this connection it may be mentioned that the Zotzil-speaking Indians of Huistan are accustomed to beat their saint (St. Martin) when they have a bad year, and to caress him and anoint him with oil when things go well. We were told that he had lost his nose and both ears due to this practice.

One prayer was dictated to us by Señor Cruz at Toniná, the full text of which is given in Appendix VI, Text I. It is primarily meant for a poor man when making his offering in the cornfield, a use which is indicated by the phrase "health of the earth," but it may also be used in church. The phrase "blood of my flesh" suggests a remniscence of the ancient Maya offerings of blood from the ear, tongue, etc. A free translation is given here.

PRAYER OF A POOR MAN WHO HAS NOT MUCH TO OFFER.

"Do Thou accept, in the name of our protector God of the blessed land, what I have gained, and what I have not gained. Do Thou forgive, in the name of our protector God of the blessed land, blood of our flesh; our hearts are open, our lips are open. Give health of the earth; protect thy son kneeling here."

Of primary interest to us were the survivals of the old worship. At the time of the Conquest the Spaniards put forth their utmost efforts to suppress the native religion, and the process has gone on

*Sapper, 1925.
†Gann, 1918.

spasmodically ever since. The temples and idols were overthrown, the theocracy, that knew the lore and could read the books, was killed off or reduced to the common level. The books themselves have vanished. At the same time, churches were built, and Christianity preached with a fine enthusiasm. Later, idols whenever discovered were destroyed, and all forms of heathenism vigourously opposed. This process has continued for some four hundred years. In other places less than half that time has sufficed to wipe out every vestige of an old cult, but here, not only had the Padres to deal with a race at least semi-civilized, supporting a sophisticated religion, but a people of remarkable, tenacious conservatism, and who, moreover, at all times have outnumbered their conquerors.

It must be borne in mind that the highly evolved, elaborate old-time religion could only be maintained in its purity by an educated people, men who could philosophize, study history, and read the stars with scientific accuracy. Obviously, what survives can only be in a simplified and debased form.

Most directly religious are certain places of worship retained by the Indians. The old Mayas are known to have used, of course, caves as well as their mounds and temples. Nuñez de la Vega* tells of such worship going on in his time, and according to Sapper† it continues in Guatemala today.

In Ocosingo Valley, the pyramids of Cololté (*kolol-te,* a kind of tree), Chakalchib (*cakaltcip',* translation not known), and Campomtik (*kan,* "yellow," *pom,* "incense," *-čtik,* "much"), have been mentioned in the last chapter. They are all prehistoric places of worship. Their use by the Indians has been continued into modern times.

On top of Cololté the almost completely disfigured idol has already been described. It is decked with fir branches, and fir tips have been laid about its base. Before it in an arc stand wooden sticks to hold candles. The Indians do not come here at set periods as is usual elsewhere, but only when there is great need of rain.

Campomtik, across from Cololté, was used annually until a short time ago. Their celebrations made so much uproar that finally a local Priest had them driven away, and the worship there has been discontinued. There is still a big, rotting cross set up on top, but there are no offerings or candlesticks.

Behind Ocosingo, Chakalchib is still a place of worship, where fiestas are held annually without benefit of clergy. A large pile of stone in the center of the platform supports one cross about the

*Nuñez de la Vega, 1702.
†Sapper, 1925.

height of a man, and several other smaller ones in more or less disrepair. On the northeast side is a fireplace. There are a few candlesticks, some with traces of wax in them. Fir branches and tips, mostly withered, were piled so deeply as to indicate several years' deposits. According to description, Indians come here from far and near, to dance and drink as at any ceremony.

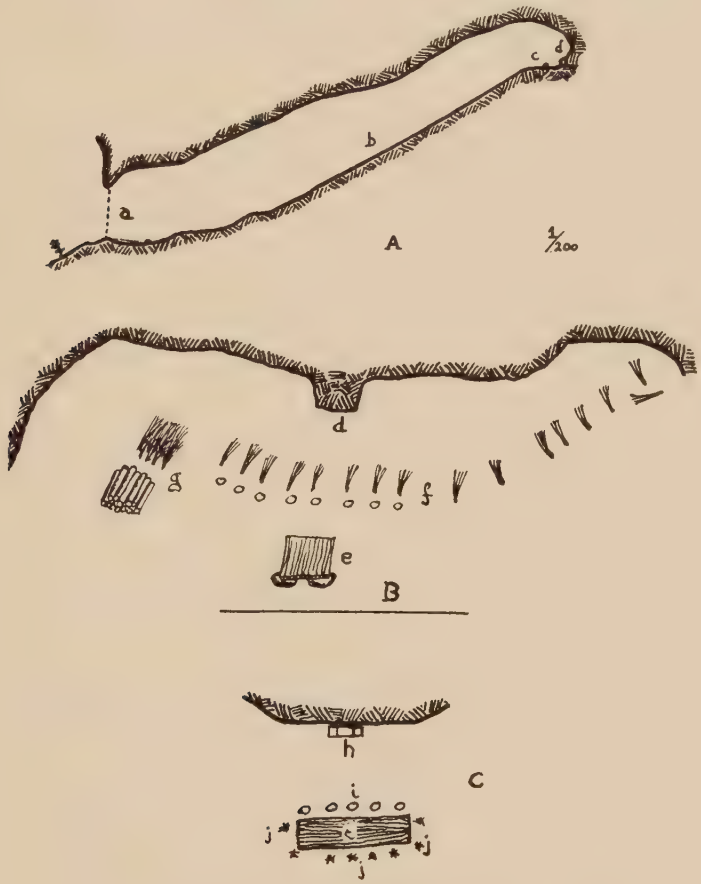


FIG. 310—Chacalchib, Chis. Altars.

A. Section of cave.
a. Sleeping place.
b. Ascent.
c. Level place.
d. Projection of rock.
B. Plan of Altar.
e. Board for incense.
f. Pine tips and candle sticks.
g. Reserve pile of pine tips and candle sticks.
C. Plan of Second Altar.
h. Cross.
i. Candle sticks.
j. Pine tips set on end.

More interesting than the top of the mound were two caves in its side, formed by the natural hollowing out of limestone outcrops near its base. The first of these had a small entrance, not high enough to stand up in, and just about large enough to give room for the grass bed and fire of which we found traces (fig. 310 a, b). From there the cave went up a few meters, and divided. The

left-hand fork ended shortly. The right-hand one went on to a small level place, on which about four people could squat at once. The roof was too low to stand. In the end wall a block of rock about half a meter high and twenty centimeters broad stuck out. In front of it were eight small candlesticks in a row, a neat bundle of fir tips laid before each. More of these extended in an arc to the right, and there was a pile of spare tips and candlesticks at one side. Behind this was a square of bark resting on two stones, which showed signs of having had incense burned on it.

The second cave was more open, more of a room, high, and broken with pillars of limestone and dirt. It was caused partly by hollowing out limestone through the action of water, and partly by washing out the soil. In a quite open situation a small, square cross was leant against a rock. There was a flat board for incense, with five candlesticks on the side of the cross, and fir tips around the other three sides (see fig. 310 c).

These two caves, whether or not they were used in pre-Conquest days, do definitely represent the survival of a purely non-Christian manner of worship.

The general attitude of the Indians towards all the carvings of the Old People is not without interest. While they appear to attach no particular significance to the temples, they call all idols by the generic term of "santo." Thus the fine bas-relief found near San José Reforma, told of in the last chapter, was known to the natives as *Santo Ton,* "Saint Stone," or "Holy Stone."

Distinct from worship at these archaeological sites are the offerings made to the "guardian," *yaHwal,* of the cornfields, a pure old Maya rite carried on in the modern fields. This is purely family matter, at which the head of the family officiates. A cross is set up, *atole* or *cocoposole* (*posole* with cocoa and sugar) and rum are offered in bowls, candles and incense are burned, and a chicken killed. The prayer quoted on page 365 is recited at this time. The offerings are only made at the time of planting the *milpa* in the spring, and suffice also for the fall *tonamil.* As nearly as we could find out, each field has its particular guardian, an idea which was shown by the case, to be described later when speaking of magic, of a man who took steps to gain the consent of a field's guardian before putting a curse on it.

There is a guardian of the river, *yabahen,* and of the mountains, *hun ahau.* This last is of particular interest, correponding as it does with the old Maya day-name signifying chief. Hun Ahau is mentioned in Landa, page 200, edition of 1864, as ruler of Mitamnal or hell. As Hunahpu he may be referred to in the Popol Vuh. Two

fragments of prayers to him will be given when discussing medicine. Distinct from the guardian of the cornfields, he is known only by name to the ordinary Indians, and mention of him appeared to alarm them a good deal.

Drunkenness still retains some of its old, ceremonial significance, in its association with fiestas, funeral rites, and particularly with medicine, under which head it will be more fully taken up.

There are a number of beliefs and practices, no matter what their origin, which, as they exist today, must be considered as superstitions rather than religion. Of such a type is the belief mentioned when speaking of hunting, that painting the bullet red would make it go further. This is of interest in the study of survivals, in view of the importance of the colour red in pre-Christian times. It may be equally well argued, however, that the red in this case represents the blood of the animal to be slain. Most of the superstitions are concerned with the *nagual* or the soul.

The set of ideas that constitute Nagualism is derived from ancient and important beliefs. The *nagual, tcul-el* (*tcul,* "holy," *-el* "the, the one"), is a companion-spirit to a man, taking the form of some animal. The stronger the *nagual,* the stronger the man, thus one with a jaguar for a familiar could work any kind of magic or other harm on one with a rabbit. We were told both that the *nagual* was assigned by popular consent, due to people's opinion of a man, and that it was seen in a dream. A man who has a quarrel with another will deliberately shoot animals of the species of the other's *nagual,* hoping to hit the particular one associated with his enemy. If that one dies, the man dies, and vice versa. Thus, it is plain that there is no idea of association with a whole class of animals, but only with one individual of a class.

According to Nuñez de la Vega,* in the seventeenth century the *nagual* was assigned by a shaman, who took it from the name of the day on which the individual was born. The child was later caused to see his *nagual* . . . *"se abrazan cariñosamente con su nagual, que por arte diabólica se le apparece muy doméstica y supersticiosamente cariñosa, aunque sea una bestia muy feroz, como leon, tigre, etc."*† According to Sapper (1925) exactly the same practices obtain in Guatemala today, the animal being caused to appear by means of hypnotism.

It is possible that further investigation would show a similar manner of choosing the *nagual* among the modern Tzeltal. How-

*Nuñez de la Vega, 1702, loc. cit.
†Extract in Paniagua, 1908, Page 57.

ever, much hinges on the difficult question of whether or not they still possess the old calendar, without which the divination would be impossible. This will be spoken of again. On the whole, the Tzeltal do not show anything like the robust survivals of old religion that are found in Guatemala; in this respect, also, they have retained only a degenerated form.

Concerning the attitude of the Indian towards his *nagual,* two stories may be told that have a certain interest. The first is an incident which occurred to us at Cacate-el, the ranch of Señor Tovilla in the Bachajon country. A Bachajon came in to complain that another Indian was casting spells on his fields and chickens. The other had taken a piece of dirt from his cornfield, so as "to gain consent of the guardian" (see above). He was making the corn wither and the chickens die. His power lay in his *nagual,* a *leon colorado* (*saxal-tcoq*), the most powerful that one can have. The Indian who complained had some much weaker familiar. We gave him a brilliant chromo of Saint Jerome with his lion; not only because St. Jerome is the patron of the Bachajon, but also because of the lion, obviously to him the Saint's *nagual,* which anyone could see was larger and more powerful than any known to the Indians. With this picture set up in his house, he felt that he could rest in safety.

Señor Tovilla also passed on to us a story told him for true by an educated and trustworthy upper-class Mexican, an *abogado* (somewhat corresponding to the English solicitor). It is interesting for showing what is commonly believed even by the European people, although somewhat hard to accept. This man stopped at a Bachajon house, wherein he saw two old men sitting with their backs to each other, and two dogs fighting furiously on the floor. When he asked why they did not stop the fight, one of them answered:

"Our *naguales* are in those dogs, and my friend (*sic*) and I are fighting."

He went on to relate that, after the dogs gave up from exhaustion, both the men's faces were covered with black and blue marks.

The Indians and their medicine men have succeeded to a remarkable degree in impressing the Ladinos with the reality and power of their magic, although it seems to be generally felt that it can only be used against themselves. Several very extraordinary stories were told to us by trustworthy people of more than the usual intelligence, and we were occasionally surprised at the reluctance of educated Ladinos to give information concerning native shamanism.

Because of the close relationship, the Indians try to keep secret their *nagual* lest an enemy should start hunting for it. Moreover,

to admit to having a weak one would admit weakness in magic and all other things, and set one's enemies immediately to work with the certainty of success.

Although the idea prevails among the Ladino people of Chiapas that the *nagual* and the soul are the same, in reality they are quite distinct. The soul, *lap,* is conceived of as a separate possession, distinct also from the principle of life, both in its conception and etimologically ("life"—*kucul*). This soul is a delicate thing, easily lost, and the object of many ceremonial precautions. Apparently it dwells within the body, but may be jarred loose, or lost in whole or in part.

Ápropos of this, the Yocotan curse, given in Volume I, Chapter VI, a prayer to get hold of a man's soul, shows a similar idea. The damage is not done by catching the soul, but by the magic that may be worked on the man after it is caught. Save for the immortality which the Indian enjoys through it after death, his soul may be regarded as much more of a liability than an asset.

If an Indian falls down, the shock of the fall loosens his soul. He must lie where he is until his companions, or the next comers, place a circle of little crosses of grass about him. They then sweep up the trail behind him, gathering the dust and placing it in a heap by his head. On this the grass crosses are burned, and the Indian, inhaling the smoke, regains his soul.

It should be mentioned that these are a very sure-footed people, who seldom fall, and that no importance is attached to falling down when intoxicated.

In case of severe fright, the soul is also thought of as jarred loose. To cure this, an egg or a chicken is buried at the spot where the fright occurred. There is some idea of fright being caused by a spirit that must be placated, an idea which is differently expressed in a custom described as common among the Chol Indians near Palenque. With them, if a child is frightened, the mother beats it soundly, meantime crying "Go away, devil, go away, devil!" (*Que sale el diablo!"*) In this case fright is definitely a form of possession. It is part of a conception found among many of the Mayance tribes that there is something unnatural and supernatural about a sudden shock of this sort. Being startled must be distinguished from merely being afraid of something, which is considered entirely natural and comprehensible.

On the trail the Indians sleep on beds of palm leaves which take an impression of the sleeper's body. Before going on, these leaves must be shaken out, and should also be held over the smoke of the

fire and then hung up to destroy the impression and prevent leaving behind with it a portion of the soul, on which magic could be worked. Our own observation was that this precaution was carelessly observed.

Although magic may be worked on impressions on leaves, bits of hair, earth from fields, etc., the Indians showed no objection at all to being photographed beyond a certain embarrassment, and very little to being drawn. Often they asked to be photographed, and at some villages posed readily for sketches.

Although, according to Nuñez de la Vega,* there were originally several classes of shamans among these tribes, at present they seem to have narrowed down to one medicine-man type. Primarily these are doctors, but in their practice they preserve certain priestly characteristics. They have a real pharmacopeia, and Ladinos and occasional foreigners who have tried their skill testify to the effectiveness of the medicines.† All their knowledge, however, is kept in greatest secrecy. Just enough medicine is administered at once for a dose, the shaman watching to see that it is consumed, and none held out for identification. Of these we were able to find out virtually nothing. Serpent fat, *junto-tcan,* is in common use as a rub for colds. Head-aches and extreme drunkenness are treated by cutting the forehead with a bit of sharp glass, and bleeding is resorted to in some other cases. The use of the tourniquet in cases of snake-bite is widely known.

All applications of medicine are accompanied by prayers recited in such a way as to be unintelligible to lay hearers. The prayers are an essential part of the treatment.

Shamans are trained from early infancy, being selected probably by the older practitioners. One of them takes the student in hand and teaches him prayers and medicines proper to his particular specialty. With this goes a certain amount of plain magic. Whether a man may then study under others and continue learning is not known; however, they vary in reputation both for their ability at curing, and for clairvoyance, casting spells, etc. Casting spells is a sort of reverse function of doctoring, the man who can cure disease being, obviously, able also to cause it.

One of the two words given for a shaman, *poci',* shows an interesting resemblance to the Tzeltal for rum, *poc.* This similarity gains importance in view of the real connection between curing and drinking. A shaman definitely will not perform unless he is more

*Op. Cit.
†Cf. Sapper, 1925.

or less inebriated, not from greediness, but because it is a ceremonial necessity for him to be in that condition when dealing with the sacred things. Drunkness was a requisite of certain functions among the old Maya, and with the present-day Lacandones,* the Chontal shamans similarly will not perform unless drunk.

Sebastiano Guzman, a Bachajon at El Encanto, a specialist on snake-bite cases, would not treat a friend for snake-bite, although he carried him on his back for two hours to get treatment from us, because the friend could not buy him any rum. It probably would be considered very dangerous to deal with the supernatural healing powers when sober.

When a group of Indians are drinking at any time, the shamans, as soon as they are drunk, go off together to one side and proceed to exchange prayers and prescriptions which they will not discuss when sober. They make a curious spectacle thus; a group of elderly men sitting in a corner passing a bottle about, plainly drunk, and gravely intoning prayers that are obviously to all of them matters of weighty importance.

Of their prayers two, or parts of two, were obtained. The first was copied by a Ladino secretary at El Encanto from the recital of an intoxicated shaman. The shaman became a general object of ridicule to all his people, lay or initiate, for having let out one of his secrets to an outsider. The second was recited by Señor Aguilar of El Encanto, who had overheard it. No one was able to give us any but the most fragmentary and unsatisfactory translations for these prayers; undoubtedly the text is in part archaic, and may contain some gibberish. The manner in which they were acquired, moreover, prevents accurate transcription. They are given here, rather than with the Tzeltal Texts in Appendix V, because of this failure to translate them, and their primarily ethnological value.

I.

hun ahau ilic tunic baken pusti-lum tal kowit' tal keke manic tunic inic kilan kun in ahau keke tunic hun tsak-unti-bak tsak-unti-tci.

Hun Ahau, the Guardian of the Mountains, has been discussed already. *ilic* was said to mean "drove out the sickness," and *tunic*, "placed the sickness." *pusti-lum* contains the stem *lum*, "earth." *tal* may be the stem of the verb *tal-el*, "to come." *kilan* is a lizard used in medicine. *keke tunic* was explained as meaning that the sickness was placed by means of *ajo* fruit. *tsak-unti* is remarkably similar to the Lacandone *tsakuntik*, "to redden," occurring in a

*Tozzer, 1907.

Lacandone prayer in Tozzer's "Comparative Study of the Maya and Lacandones," page 169. As *tsax,* which a Ladino would probably give as *tsak,* means "red" in Tzeltal, the two words may be taken to be the same. *bak* means "bone," and *tci* means "blood." Many of these translations are doubtful, and all of them together do not suffice to explain the text.

II.

hun ahau bitskilim gravilan yokivin-wits yevakinok . . .

This also begins with Hun Ahau. *wits* means "hill." Beyond that no translation could be obtained.

The whole material on medicine and shamans is very slight and unsatisfactory. Indeed it is doubtful whether anything could be learned save after a long stay and much patient work, so secretive are the Indians on this subject, and so suspicious of inquiries. What we have is presented here in the hope that it may prove useful for comparative purposes, and offer suggestions to any worker going into this field.

According to Nuñez de la Vega, the old calendar was still current in his time. Starr* quotes a Zotzil Calendar of eighteen months, and Pineda* gives a Tzeltal calendar of both months and days. We asked in the different villages what names were given to the days, and were told always the Spanish names, as also for the months. This may well have been from unwillingness to impart ceremonial information, but consistent replies, plus the statement of various Ladinos who knew the Indians well, incline me to believe that if the old calendar is known at all, it is known only to a very few of the most learned shamans. Feasts, as far as could be made out, are controlled entirely by the cycle of Christian saint's days. However, the Maya year might well have been by now adjusted to the Gregorian, and a time-count actually kept in the old style be stated for public purposes in the terms of the new. Pineda's calendar is adapted from one published by his father† some forty years earlier, but he speaks of it as being still current.

Seler also doubts the modernity of Pineda's calendar. In his article "Der Festkalender der Tzeltal und der Maya von Yucatan" (1898), he brings together various interesting statements. Of them, one may be applied to this survey. Emeterio Pineda he quotes as saying that the sixth month, Olalte, is the time of planting. This would be in April of our year, or the end of April and early May,

*Starr, 1903—Pineda, Vicente, 1888.
†Pineda, Emeterio, 1845.

as is also shown by his placing of Yaxkin, the first month, in the end of December. The seventh month, Ulol, is co-ordinated with Kankin of the Maya calendar. Now, according to Sebastiano Guzman, the Bachajon shaman, the big fiesta at Bachajon on May 13th is called *Kank'in.* Is this a coincidence, or a true calendar name, and if the latter, what is a Yucatan calendar name doing among the Bachajon, when we should expect the Tzeltal Ulol? In the present state of our knowledge, no more can be done than to state the facts.

O.L.F.

Chapter XVI

THE HIGHLAND TZELTAL

On the Fourth of July we left Ocosingo for the last stretch in to this fabled city of San Cristóbal, about which we had so long been hearing, up into the real mountains, the country of the highland tribes. We thought to spend the day in quiet travel, without fireworks, but our animals had other ideas. El Viejito, the old, white horse, led off by giving out under his pack right at the start. Then the bay mare cut loose, distributing her load over several acres.

The celebration finally being calmed, we reached Sivacá, at the foot of the long climb. The men who knew us were away in the fields. A few frightened women misdirected us as best they could, the animals got loose again among the orange trees and winding paths, and it was another half hour before, to the accompanying enthusiastic squeals of the local pigs, we finally got them rounded up and on the right way.

Right behind Sivacá the trail stands up on end to climb the first of the series of ramparts that lie like a defense about the highland country. It was very much like trying to ride up a gutter on the side of a house. The narrow trail was also the bed of a feeble brook. It was worn so deep that the packs rubbed along the sides. We pushed and pulled and tugged. There was the usual repetition of fallen horses and packs to be put on again. Thus for two hours, slipping and scrambling, until at last we came to a level place where an old wooden cross, decorated with offerings of flowers marked the top of the pass—1,660 meters, 600 meters (about 1,900 feet) above Ocosingo. From there on, as our trail dipped and rose along the uneven plateau, we had occasional glimpses through the tall fir trees back to the ranges behind Ocosingo Valley, and far over the hills of the Tzendales and the Lacandone country, looking very cool and blue. The trees were fine, and widely spaced; below were good grass, patches of pine-needles, and scars of red earth. We followed a succession of ridges, not very notable in themselves, but tiring to the animals after their long climb and earlier celebrations. In the late afternoon it grew cooler, and stimulated by that, and the beauty of the country, we did not know that we were weary.

One of the pack animals, a game little sandy-coloured pony with a Roman nose, who drew his neck back like a camel's when he traveled, was making better time than the rest. So Blom, on his

mule Borrachito, took him ahead, planning to get into Tenango early and arrange for food and lodging. They went along briskly enough for a while, leaving the pack train well behind. Then the pony stopped, lowered his nose to the ground, blew a moment, and keeled over. There was nothing for it but to unpack him and wait for help. By and by an Indian turned up. Blom hailed him in Tzeltal, *"La!"*—"come here!" He took cover and disappeared. Two more came along the trail, stopped at a distance to look him over, and also disappeared. After a while an Indian's head popped up for an instant behind a stone. All this was rather disconcerting, here in the Indian country, and he had noted that one of the Indians carried a thing that looked like a cleaver on the end of a long pole. He moved over to the mule, hiding his revolver side so that the Indians should not notice that he carried no fire-arms, and put himself in reach of his machete. A head stuck out again from behind a tree. Then two more Indians came down the trail, whom he hailed, asking them to carry the pack boxes into town. At first they refused, but after looking for a long time at his mule, they accepted the job. So he continued peacefully towards Tenango. He came into the open valley just before dusk, with the shadow of the further mountains just on the village, and the mountains themselves dark blue and black under tremendous thunder-clouds. The men and women were all trailing in from their cornfields, with their hoes and machetes over their shoulders. Some stopped a moment to stare at him, then went on, moving with slow steps over the cultivated land.

When La Farge and Lazaro came out into the cleared land, the valley was deep in purple shadow. They reached the Cabildo after dark, too tired to take notice of anything.

Early the next morning, while wisps of cold, silver and pink mist still lay in the valley, the village elders gathered to welcome us, bringing two chickens as presents. They said that they had heard of us already, and would show us through the village. In return for all this, we were to report to the *Tata Presidente* in Mexico that they needed more land, and were hard put to it to find food throughout the year for the 135 families of the village. At first we were escorted by the whole group, from the Village President down to the Secretary, who was illiterate and spoke little or no Spanish. Later, most of the elders lost interest and trailed off, but we always had enough of a delegation to ensure us good service. It was Sunday, so no one was working in the fields, yet we saw remarkably few people, the women, especially, keeping within their houses most of the time.

As has been said, Tenango lies in the eastern part of a wide valley that slopes down from the eastern ridge until it meets an abrupt,

Fig. 311—Tenango, Chis. Street Scene.

green wall away to the westward. Midway, there is a break in the slope, with a dramatic splash of deep red cliffs, in violent contrast to the fertile grass and soft tones of the limestone outcrops. Only the upper end of this valley belongs to Tenango, so little, in fact that the inhabitants cannot practice the usual, sprawling milpa system of agriculture. The very yards are planted, and the fields start almost in the village, radiating from it in a close patchwork as in Europe. Everything is fenced with roughly split planks set on end, and fences line the road into Tenango where it passes through the cornfields. The houses with their yards lie close about an open plaza in which are the grey bones of a ruined church, a

Fig. 312—Tenango, Chis. Houses.

whitewashed, palm-roofed native one, and the shack of a Cabildo for the Maestro. The streets are lined with useful trees, oranges, gourds, and a few bananas, which do poorly at this altitude.

The houses are square and well-made with walls of broad, split planks covered with mud (figs. 311-312). The roofs are steeply thatched and pyramidal, or have a short ridge along which broken pots are laid after the manner of tiles. The frame-work differs from that described in the last chapter in having cross-pieces laid between the plates. There are no chimneys, the smoke is allowed to seep through the thatch, keeping out vermin and making the roofs steam like a clam-bake.

Physically, the people are taller and somewhat heavier boned than the Bachajon. The older men have small beards, close to their chins, of sparse, wiry black hair. Moustaches are faint. The men wear their hair longer on the backs of their necks and over the tops of their ears (fig. 313).

The men's costume is like that of Ocosingo Valley, a long, V-necked tunic without buttons, coming down nearly to their knees, but the trousers are usually rolled up until almost hidden. A plain red sash is worn knotted in front with ends hanging.

We had great difficulty in getting a look at any of the women until finally the officials arranged for a few of them to come and

FIG. 313—Tenango, Chis. The Village Elders.

be photographed with their husbands (fig. 314). Nothing could have brought them alone. They were very strange and stiff about the whole thing, and showed more genuine fear of the camera than we saw anywhere else. The women of marriageable age draw their hair together at the back of the head. Around it a long, red, woolen ribbon, about three centimeters wide, is wrapped until it forms a disk standing out like a halo, the exact size being a matter of coquetry. The hair is then turned back and laid along the edge of the disk and wrapped in the last few rounds of ribbon. The result is that it comes out from the head through the center of the disk in a thick mass, then forms a flat elbow where it is doubled back to the

edge (fig. 315). Married women use the same head-dress, but with a smaller disk. Girls not yet marriageable do their hair in a pig-tail.

The women's blouse is of the old *huipil* type, a long sack of a garment, hanging to the knees, with the shoulders broad enough to come to the elbow, or else with short sleeves sewn on. The seams, cuffs, and neck are picked out with red stitching. The skirt is dark blue, and comes about half-way between knee and ankle.

It is an interesting point, and one which archaeologists should note, that Tenango makes the only decorated pottery in the district and has a monopoly also on the big, three-handled water-jars. The

FIG. 314—Tenango, Chis. Married Couples.

Indians explain that they go in for pottery-making because they need the money to supplement the products of their insufficient fields. We were there during the farming season when no work is done on pottery so we were not able to see the processes of manufacture. However, one of our guides took us to the house of a woman who had some reputation for skill, and all types were brought out for us. Besides the forms described in the last chapter, and the big water-jars (fig. 316), they make a goblet-shaped salt-cellar, *yoc-wal-ats' a'* (*atsam*—"salt"), a *tsets* bowl of

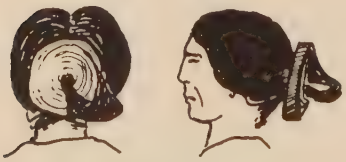


FIG. 315—Tenango, Chis. Woman's head-dress.

one piece with its stand, which is then called *cOt,* and a pot with one or two spouts and a handle on top called *bur'nia* (figs. 317-319).

The decoration is fairly standardized. In the big cantaras each woman uses a central element of her own, and all follow the same general scheme. Occasionally a potter breaks out with an odd form, such as an undersized cantara which we bought. It has a row of pellets about the rim, called *tut-cuH,* "little beads"; around the center is a zone of galloping animals showing considerable action, but difficult to identify. When we asked what the animals were, the woman replied rather wearily that they were "to make it pretty," so we let it go at that (fig. 318).

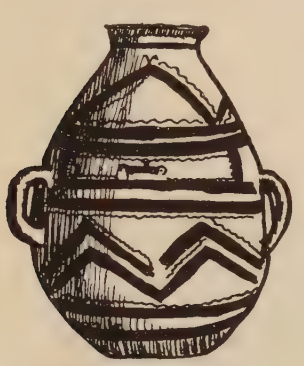


FIG. 316—Tenango Jar. (45 c.m. high).

The clay used is a light, greenish brown colour, and lumpy before being prepared. It is tempered with ground, sandy limestone, *hiH-ton* ("sand-stone") of fine quality. The jar is painted with a paste made of a soft,

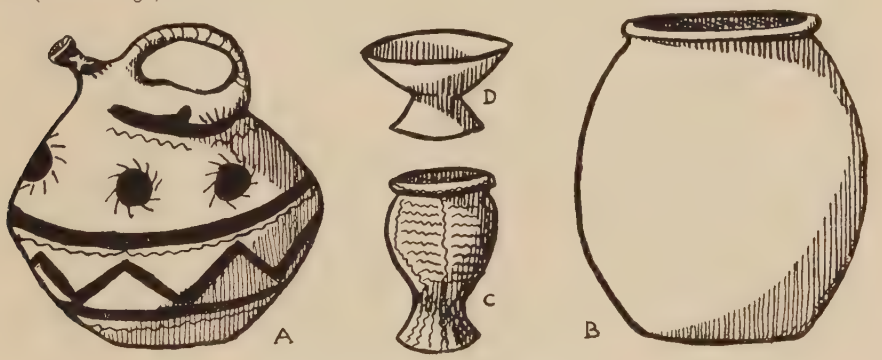


FIG. 317—Tenango, Chis. Types of Pottery.
A. Burnia. B. Ocom. C. Yocwal-ats'a. D. cOt.

FIG. 318—Tenango, Chis. Central designs from jars.

black stone, *tsa-ik* (*ik* equals "black") ground and mixed with water. It is laid on with the soft, green tip of a bush called *Hwamal.**

The women's *huipiles* and all the men's clothes are woven at Tenango by the women. The men's sashes, which they make, are not as finely woven as among the Bachajon. They are undecorated

*To make a contara—*pas-k'ip.* To paint a cantara—*siva-k'ip.* To bake cantaras—*yaktcik k'ib-tik* (*-tik* is the emphatic plural, they are always baked in large batches).

and often have no fringe. We were told that it was impossible to see a woman weaving at that time, but by persistent stalking the writer finally managed to locate a girl at work, whom he observed and sketched from behind a bush. The women here were so consistently shy that no doubt she would have rolled up her loom, which was of just the same type as the one seen at Sivacá, and fled into the house had she known she was observed. Our procession through this very pretty village, too, was a serious affair—distinguished strangers being shown around town by the mayor—and had none of the cheerful joking and general *bonhommie* that produced such friendliness and good results at Sivacá.

Something more should be said about the agriculture here. Ordinarily, Indians go out to choose their own land in the bush and

Fig. 319—Tenango, Chis. La Farge drawing pottery.

plant it with little cultivation, placing the corn close together. Here each family has its land assigned to it by the council. As the same field must be planted year after year, the hills of corn are widely spaced, and the ground is turned over as deeply as possible by means of heavy hoes, *ak'en,* purchased in San Cristóbal. As was said, everything is fenced as much as possible. When some of our pack animals got loose in a field, the excitement was intense. In the yards of the houses they raise corn, beans, and a plant related to tobacco. This plant grows nearly as tall as a man. The leaf is rubbed on their legs to cure fatigue. It is carried with lime in a small gourd and offered and accepted for chewing with much the same bowing and formalities as obtained among our ancestors when offering snuff.

We had a better chance here than anywhere else to look over the village government. It being Sunday, all were present, the *Presidente Municipal,* the *Secretario,* and council of *Regidores,* elderly men, grave of mien, with small, black goatees. The ordinary villagers treated them with the greatest respect. Each official carried a silver-headed cane with a red ribbon tied to it and the name of his office inscribed on the head. They are appointed to their offices by the government with the ratification of the village. The Maestro works entirely through them, and their orders are absolutely obeyed. Indeed, owing to the independent nature of the Tenangeros, the Maestro is rather like the ambassador of a powerful foreign nation persuading the local government, through tact and very gentle pressure, to behave.

We finished our survey about noon, the Indians appearing unwilling to have us enter their houses. For the rest of that day we spent our time working up our notes into good shape, then teaching the gift chickens to do tricks until Lazaro claimed them for the pot, and in dodging the local officials who, having got themselves slightly tipsy in honour of the Sabbath, came importuning us to give them cigarettes, of which we ourselves were short.

Both that night and the night before, traveling traders built their little pine fires on the mud verandah of the Cabildo. In one case it was a Mexican and an Indian, in the other two Mexicans, to be distinguished from Indians only by the cut of their trousers and a donkey. They travelled with their big packs on a tump-line, long staff in hand, for all the world like a living re-incarnation of the traders shown in the pre-Columbian drawings of the codices (fig. 320). In old times they traded parrots, macaws, obsidian, textiles, jade, and later, gold and copper. Now it is a business of cheap watches, gaudy cloths, and ten-cent jewelry, bringing Connecticut, Hamburg, and Orizaba down to a fiesta in Bachajon village, following the old trade-route along which we were going, in the other direction, to San Cristóbal. Very few of the present Indian tribes

Fig. 320—Travelling Aztec Merchant. Drawing after the Codex Laud.

themselves maintain an export trade, yet there is some. From the distant, shy Lacandones a little tobacco of fine grade comes out, in exchange for salt, dogs, powder for flint-locks, and aguardiente. Tenango pottery goes down to Salto de Agua and up to Tenejapa where it meets the finer products of Amatenango, with which it cannot compete. Amatenango pottery is traded as far, at least, as San Andres in Guatemala. Chamula blankets are worn in Cancuc, and all through the Chiapas mountains. The Indians of the highest section keep warm in a heavy woolen shirt called *"chuj,"* which is made in Guatemala. So they themselves, on a small scale, and the Ladino peddlers yet more, keep alive a vestige of the old trade that once ran from Central America to Utah.

Fig. 321—Cargadores with our boxes.

The last day's climb had seriously fatigued our horses. It became obvious that they alone could not bring us safely through, so on the sixth we arranged for five *cargadores,* under one of the village councillors, to carry five of our boxes through to Cancuc (fig. 321). It seemed as though that would make quite a load for each of these men, but we came to realize that the carrying power of a Highland Tzeltal truly puts a mule to shame.

At the end of the valley we swung up into the highroad that runs from San Cristóbal to the Lowlands at Salto de Agua. Once fairly well smoothed and levelled, this road is now impassable for ox-carts, and even horses must pick their way over the jagged limestone

boulders with care. It still is broad in most places, and has reasonable grades. We climbed to a rather desolate upland of wind-swept grass with a few crooked trees. There was some traffic on the road. We passed a group of Tenejapeños going down to the hot country to carry sugar. The men were ragged and woolly, like those we had seen at Salto de Agua, and their women, in short blue skirts and white blouses gorgeously ornamented with gold and crimson silk, were remarkable for their very pink cheeks showing through dark brown colouring.

The town of Cancuc (*kank'uk*) lies on the rounded shoulder of a long ridge that juts up above the high moors commanding a tremendous view North, West, and South over a jumbled mass of mountain ranges, like a herd of great elephants shouldering away to the horizon. A wind blows day and night, the trees are small and stunted, and the general effect is one of bleakness and height. At an altitude of 1,440 meters, with the unresting wind, it is always cold. The highroad climbs from a ravine up into the village where a small plaza is laid out on a level place. On our left was the big, white church, still well preserved. Opposite it, the Cabildo surprised us, a neat building with tile roof and white columned portico, built in President Diaz' time. Round about were some tumbling and ruined huts, and behind, the village rose on rough terraces crudely faced with stone.

Cancuc has a stormy history. It was the center of the famous rebellion of 1712, the subject of Brinton's "Maria Candelaria."* According to Starr (1904) who passed through here, there is a tradition that the men's long hair, covering their ears, is so worn in memory of the clipped ears which their ancestors received at that time. Recently, there has been political dissension in the form of a dragging feud, and a series of small fights and murders has resulted in those left of the defeated party abandoning the village and setting up their houses in the bush. It is from this that one sees so many huts deserted and beginning to disintegrate, adding to the general cheerless aspect of the place.

We were well received at the Cabildo, where the village officials with their silver-headed canes turned up shortly to look us over. They were younger men than most of the officials we had met previously, and a pretty tough looking crew, much what one would expect of a group that had attained office largely by means of the machete. The people on the whole rather resemble the Bachajon physically, being of a small-limbed type with an average height for men of about 160 centimeters, and nearly beardless. The men wear tunics cut as at Tenango, but decorated with red and yellow em-

*Brinton, 1897; Pineda, 1888.

broidery along all the seams, at the cuffs, and over what would be a pocket in a European shirt. Trousers are either very short "shorts," or replaced by a cotton breech-clout. Hats are seldom worn. Most men carry woolen blankets woven by the Chamula Indians. The red sashes are knotted in front (fig. 322).

The women's dress is the same as at Tenango, but without any decoration, and with a shorter skirt. Their hair is worn in two braids, or done up in a knot over the forehead, forward of where the tump-line is placed.

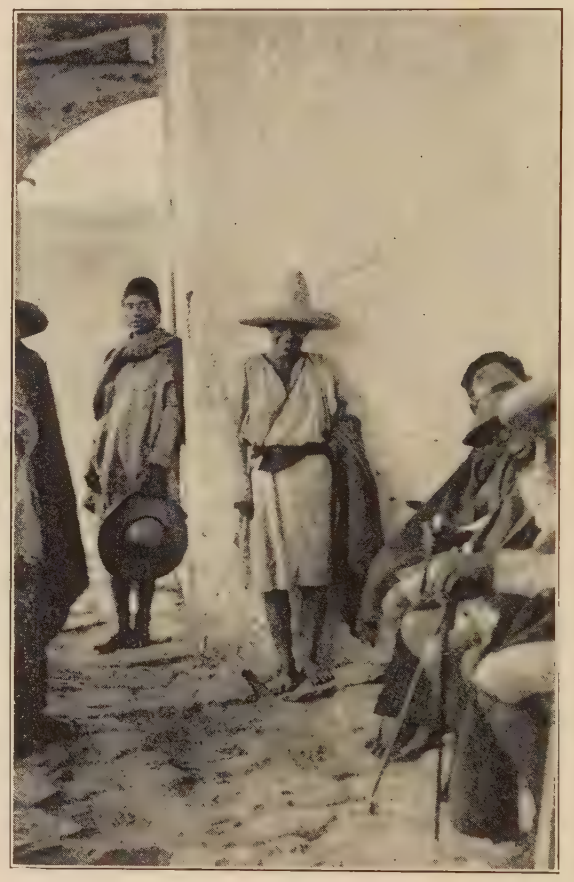


FIG. 322—Cancuc, Chis. Men on the Cabildo porch.

These people, for all their turbulence, are very devout, although, like many who are more civilized, they leave most of the expression to the women. The church is swept out daily by women appointed for the purpose. Along about five o'clock in the afternoon all the women drift in, singly or in small groups, pray for awhile, and come out. Looking in the door one sees the large interior almost pitch dark, cut here and there with tiny, yellow candle-flames, and hears a monotonous sing-song drone of chanted prayers. Their festivals center about the church. In this connection they have a very curious custom. There are two scaffolds by the plaza (fig. 323) very small platforms on four rickety poles about four meters high, surrounded by an insufficient railing, arched over with palm branches, and reached by a frail-looking ladder. The drinking which, as was explained in the last chapter, is an essential part of any ceremony, must all take place on top of these scaffolds. It is indeed a miracle that every fiesta does not cause a score of broken necks.

While wandering around to see what he could see, the writer was hailed by an elderly woman who gave him to understand by signs

that he was invited into her house, presumably to take shelter from the evening rain that was beginning to fall. The house, of which he sketched a hurried plan (fig. 324) was more rectangular than is usual, the prevailing type being square with a pyramidal roof. He entered through a low doorway, closed with a wooden door on leather hinges. Although the ridge of the roof was high, the many cross poles reaching from the top of one wall to the other made it necessary to stoop. The writer squatted by the door, facing the fire, which smoked merrily in the closed room. The old woman immediately set to shaping a pile of tortillas for baking. Along either wall was a well-made bench, decorated with notches along the top and geometric designs on the back, similar to the benches on the Cabildo porch (fig. 325). These and a sturdy table that was stored on top of the stringers were said to be purely local products. By the door stood a big jar, a full meter in height, crude and undecorated (fig. 326). There was the usual collection of ollas and gourds, and one other new form, an open-mouthed pot about eight centimeters high and as many in diameter, flat bottomed, with a handle on one side, called *hüitc* (fig. 327). In the thick smoke, it was hard to see anything. I was interested to note that my hostess' eyes watered nearly as much as my own. In the darker end of the house I could make out corn stacked neatly along one wall, and a partition that presumably hid the beds. For a while the woman answered the few questions that I could make her understand by means of signs, my half-a-dozen words of Tzeltal,

FIG. 323—Cancuc, Chis. Drinking scaffold.

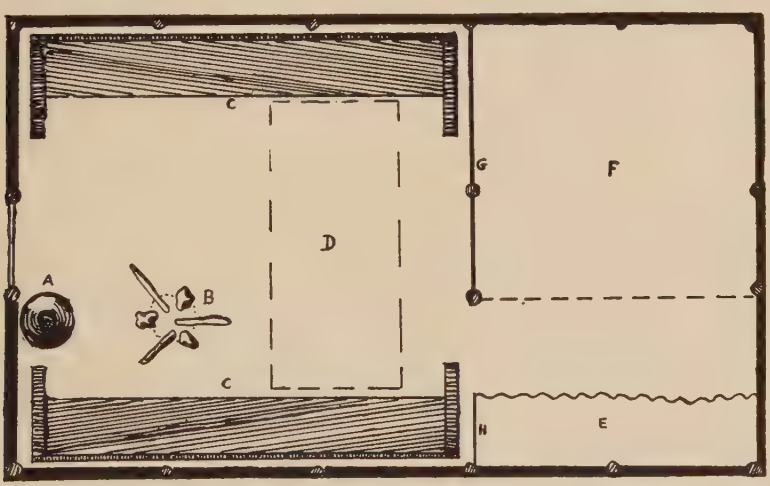


FIG. 324—Cancuc, Chis. Plan of House.

and her three words of Spanish. Then she grew hostile, answering everything with a plaintive *"Ma snaa,"* "I don't know." This went on for two or three minutes, then suddenly she flung open the door and waved me out with no uncertain gesture, saying something about the "Presidente Municipal," and the "Secretario." By this time it was pouring cats and dogs, but there was nothing to do save run for it.

Cancuc is not noted for any product. There are about the same arts and industries as at other towns, but the only ones that amount to anything like a specialty are netmaking and whittling combs. The combs are better and more neatly made than those of the Bachajon, and with a selection of the wood for grain that often produces very pretty combinations. The nets are made by the men, who

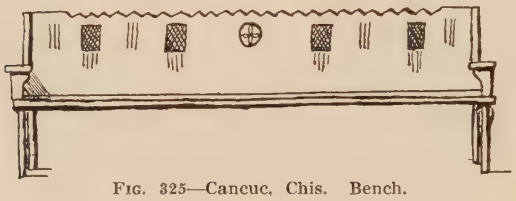


FIG. 325—Cancuc, Chis. Bench.

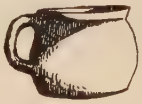


FIG. 327, Cancuc, Chis. Pottery, Hiitc. (8 c.m. high).

FIG. 326—Cancuc, Chis. Tall Jar. (1 m. high).

go about rolling the twine or knitting as they walk. The process was described in the last chapter.

Being on the main highway, the government maintains a long shed, like a wagon-shed, thatched with leaves and grass, which is at the disposal of travelers. This relieves the Maestro of duties of entertainment. Towards nightfall, various groups came into camp here, a family of Mexicans, with a big fire, and goods piled high, two traders with their packs, some Chamulas, fine-looking men dressed in white wool tunics, with flowing cotton kerchiefs round their heads, and a couple of Tenejapeños with nets full of apples. The Chamulas, who are remarkably progressive Indians, had come in with a string of mules. After dark, the line of fires in the divisions of the shed, the talk, the fire-lit figures in their varied costumes, with the Church and houses rising on the terraced hill behind made as picturesque and charming a scene as one could possibly imagine.

From Cancuc the road falls slowly away, then it climbs to the steep side of the ridge and at last dips percipitously to a covered bridge over a narrow ravine. All along on both sides little cornfields alternate with second growth. Ahead, the same great palisade that we saw from Tenango rises in a green wall, patched with fields and broken here and there by outcrops of cliffs and hanging valleys. We passed a dribbling of traffic, Indians on foot, and at the bridge met a family of Mexicans noisily eating a picnic lunch. The ravine was deep, rock-walled, with a roaring stream in the shadows of the bottom. From the other side of it the palisade rose immediately, looking almost perpendicular and indefinitely high to us as we contemplated it. The road assumed a stiff grade, rising in a series of zig-zags that gained painfully to the top. Straight up, almost like a ruled line, lay the Indian trail, taking no account of the twists and turns of the road. Our carriers from Cancuc, who took on the cargo that the Tenango men had carried the day before, had gone up that fearsome climb. We tried it, but the horses slid and fell back on their haunches, and we ourselves could barely keep our footing. So we continued along the road, turning and turning, seeming never to gain, and fearing that our animals would never make it. The heat of the sun was thrown back by the hillside and the road.

We toiled on. Low growth and brush on the side of the road gave no shade. The dust rose high. The air, for all the heat, began to have a pleasant crispness that reminded us of high altitudes in other countries. Then we smelt a familiar smell which we ignored until its persistent recurrence forced us to look, see, and believe—that blackberries grow wild in Chiapas! The event of the next hours amused Lazaro greatly, for here in Mexico we found ourselves among familiar northern flowers and wild fruits, buttercups, dandelions, wild roses, blackberries, strawberries, all strange to him. We passed an Indian farm, stuck into a tiny hanging valley, where peach trees and alligator pears were growing together in the cornfield.

At the top of the pass in a shallow V-shaped cut, the barometer read 2,100 meters, a climb of 600 meters—about 1,900 feet—in two hours.

The country changed beyond here to steep ravines, high cliffs, rushing, cold brooks, and tall, dark fir trees clothing the rocks. The tilled fields disappeared, the scattered houses, and stick fences. It was a wild, shaggy country—a perfect setting, we thought, for the home of the rough Tenejapeños that we had seen along the road.

Near evening, a road forked off to the right, leading to a split in a wall of high cliffs through which we could see, already dark with

shadow, another wall far behind. A Mexican told us that Tenejapa lay in the valley thus enclosed. With the cool evening air our animals picked up, taking us along at a good trot. We swung around a green dell, up under one cliff into the opening, over the threshold of a ridge. Some Indians sitting there waved to us. Beyond was a tiny, lush meadow and a brook where some Mexicans were making clay tiles. There was another rocky hillock, around which we swung to find ourselves trotting down a well-cobbled street lined with little white cottages, white-walled gardens, and roses. To us, looking for something yet wilder than the villages we had seen, the neat houses and candle-lit casement windows, the doors of tiny shops, the flowers, and the shingled roofs were an utter surprise. In the streets was a sprinkling of touselled-headed Indians

Fig. 328—Tenejapa, Chis. Church and Plaza.

and Ladino people of much fairer complexion than the typical, Lowland Mexicans. We rode past a gaunt, high-shouldered stone church into the plaza, a field of about two acres planted with a few trees, and with a fine town fountain of icy water in the middle (fig. 328). Along one side ran the Cabildo, a long, one-storied building with a very deep veranda, gorgeously painted in cubist fashion, red, yellow, green and blue. Here we halted to unpack and present our credentials to the *Presidente Municipal.*

Tenejapa is really two towns in one. There is the Ladino town, around which lie the houses of some eight thousand Indians, by local

estimate, with their own, regular Indian administration under the control of the Ladino government. The *Presidente Municipal,* a most obliging man, got the Indian *Presidente* for us, whom we photographed by the last light of the day (fig. 329). Through this chief, men were sent out to bring in grass; they returned with enormous, green bundles as big as themselves.

The Indian houses outside the town differ from those previously described in the possession of a sort of porch, or part under the roof in front screened with boards, introductory to the house itself.

The Tenejapeños are strongly built, thickset, and short, with enormously powerful calves. In fact the chief industry of the tribe is acting as porters. They go in large bands to places at a considerable distance to take or bring back loads, competing successfully with the Chamula packtrains. In this the women are as proficient as the men. Their colour is dark, a rich brown, more red than golden, with distinctly pink cheeks showing through in the case of the children and old people. The men are almost beardless. Faces are rather broad and round* (fig. 330).

Fig. 329—Tenejapa, Chis. The chief of the Tenejapeños.

The essential parts of a man's costume are a pair of shorts and a brown and white striped Chamula Indian blanket, worn as a poncho. Two of these blankets may be comfortably worn in that climate. Hats, when used, are also of Chamula make, of straw with a flat brim, and round, close-fitting crown pointed at the top. Usually they are decorated with ribbons. A sash of white material may be worn, the ends of which, hanging down in front, are elaborately embroidered (fig. 331). The

*Starr (1902) made some measurements upon these people, the most important of which are summarized here. They show an interesting variability.

STATURE IN MILLIMETERS

Mean	Maximum	Minimum	Range	Below 1600	1600—1650	1650—1700	Above 1700	Total
1,557	1,722	1,403	320	75	18	6	1	100

	Mean	Maximum	Minimum	Range
CEPHALIC INDEX	76.8	86.4	68.0	18.5
FACIAL INDEX	81.6	94.5	65.6	29.0
NASAL INDEX	88.8	102.2	64.1	38.2

shorts are also usually embroidered in red and yellow. The chief had such a pair, very fine and gaudy, which we asked to see. He took them off to show us, but when we tried to buy them from him he became furiously angry and abusive. Sandals, when worn, are of the ordinary type. Most of the Indians carry a staff of some kind.

The women wear the typical blue skirt, but the blouse, cut like a poncho, is usually tucked inside and heavily embroidered about the neck and shoulders. This work takes a long time, and the finished blouses are valued very highly. When worn outside they nearly cover the skirts, which are just knee length. Red sashes with a yellow stripe from Tapachula, of the kind worn also around Ocosingo, bind the skirts at the waist. Hair is done in two braids with dark red ribbon, or tied up in a knot over the forehead as at Cancuc.

Fig. 330—Tenejapa, Chis. Indians in the street.

Men and women alike wear cheap, gay-coloured necklaces, usually rosaries.

The Indians move with great freedom through the town and lounge in company with the Ladinos on the broad porch of the Town Hall. The officials are distinguished by silver-headed canes with black tassels. In lieu of a Maestro, they are directly under the Ladino *Presidente Municipal,* and their disputes are tried by the local judge. Their lawsuits have a mediaeval air, carried on publicly with great clamor on the Town Hall porch, and all concerned speaking with the utmost freedom. A breach of promise case was observed in the course of trial. It went on for at least two hours with never less than two Indians, usually women, speaking at once. One could not but admire the patience of the rather bored and indifferent judge.

The cargadores from Cancuc arrived shortly after dark, still lively despite the long day and steep climb. More remarkable still,

one of them had developed fever, "so that he lost his breath," and another had made almost the whole trip with two kayaks, over 200 lbs. on his back. They camped on the Town Hall porch where we, with our beds on piles of grass in a room labelled *"Commandancia,"* heard them, as we fell asleep, still chattering over a friendly bottle. Here, as long ago at Ocozotepec, our goods and saddles were stored in the jail, the room next ours, bearing the tactful label in red and blue, *"Prevencion."* Our grass beds were soft and sweet. The big door framed a little of the plaza, the fountain, a cottage with a narrow barred, candle-lit window, and the towering back-drop of cliffs behind, reaching to the stars, with one small winking fire, high up, from some Indian's house. We heard our *cargadores'* low chatter-

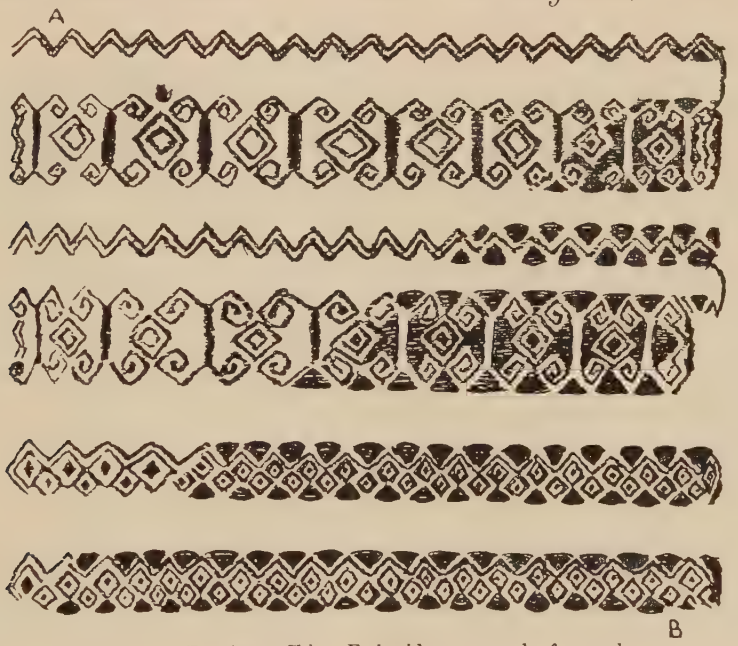


Fig. 331—Tenejapa, Chis. Embroidery on end of a sash. A. Front. B. Back.

ing, the play of the fountain, a distant guitar. The air was fresh with pines and sweet grass and mountain coolness. We were in a magic country, and we were very, very tired.

Although it breaks the sequence of our journey, it seems best to mention the town of Amatenango here in connection with the other Highland Tzeltal tribes. We passed through it just beyond Teopisca on our way to Comitan, having no time to stop off. The people had been observed in San Cristóbal, where they come in to trade their famous pottery, men and mules alike piled high with loads twice their size.

Amatenango lies in an open valley. It is estimated at three hundred houses, each in a fenced yard of good size, and shaded with fruit trees. The houses are large and well built, of mud and grass thatch, with porches. The small church and Town Hall are tiled-roof and stuccoed. The fields, which lie close around the town, and the gardens in the town itself are watered by a stream brought down a very pretty, roaring flume from higher land behind the village. The irrigation system is fairly elaborate, and is unique in this area as far as we know.

The pottery, which is their chief product, is almost all of one shape, a sphere, with three handles and a narrow bottle-neck with a flat lip. The decoration does not vary. Both shape and design, how-

Fig. 332—Tenejapa, Chis. Indians at the Town Hall.

ever, are of considerable charm. The polish is fine and smooth, giving an even golden-red colour all over, with the decoration in a deep, reddish brown. No such fine, finished work is done by other tribes in the area. The pots are baked by placing them on a rectangle of boards, two or more meters square, around a hot fire. The woman in charge turns them until they are done (fig. 333). These pots are carried by the men as far as San Cristóbal, where they are redistributed, and to Nenton in Guatemala. Their industry is sufficient to enable them to maintain mules for carrying their goods, although both men and beasts are equally loaded.

The men are tallish and the majority of them have sparse, black beards. They wear plain, white cotton tunics and short trousers, sashes, and hats of the sombrero type. The women wear the usual short, blue skirts. Their blouses are cut with a square neck, around which are embroidered three bands, each about two centimeters wide, of red, yellow and red. At the corners, little imitation tassels are embroidered in the same colours.

We were told, by an unreliable informant, that this village was remarkable for its independence. Its officials are chosen by the natives alone, and run through a regularly prescribed *cursus honorum* from secretary up to president, and then on to the council of elders. Government laws and orders sent to the village are debated by this council and are not published unless approved by them.

Fig. 333—Amatenango, Chis. Pottery baking.

We were also told that in case of marriage each party works for his or her prospective in-laws, and that the girl at that time learns pottery making, taking over the mother-in-law's specialty.

While there was no way of checking up on this information, it is true that there is no Maestro at Amatenango, and that the Indians seem to be an unusually self-respecting and self-reliant lot. Of all the Tzeltal people observed, they were the only ones who seemed to compare with the Zotzil-speaking Chamulas in energy and prosperity.

Returning to ourselves and our trip. We left Tenejapa on the following morning by a winding, broad road climbing to a pass in

the cliffs, past a wilding apple tree, and many wild rose bushes. These roses, apparently self-planted, differ from the Northern wild rose. One variety, a large red one, has a double row of petals, the other is covered with small, compact white blossoms. The red rose grows on a small bush, the white on a more rambling vine.

In the early morning, with the sun just beginning to show, and the fires newly lighted, the straw roofs of the Indian houses were clouded with a white mist of evaporating dew.

The day was windy, crisp, and clear, like late October weather. Our animals stepped forth briskly, well fed with two good meals of the long grass, and stimulated by weather that they, in their lowland lives, had never known. We travelled gaily along broken moors, stopping now and again for blackberries, or to drink at cold, swift streams. Hailing an Indian working in his cornfield, he gave us a handful of small peaches, not quite ripe, and an utter novelty to Lazaro. Here and there we passed Ladino cottages, always white, with a white-walled courtyard, many flowers, rose-vines, and shingled roof. The shingles are held down with pegs which stick up a couple of inches in rows of amusing bristles.

In the late forenoon we came up to the 2,500 meter level (about 7,900 feet). The country was pine-clad, with rolling valleys. Then we crossed a canyon and swung around onto a great, open, wind-swept moor, reaching away to the horizon, with one or two oak trees beaten down by the wind, like trees near a stormy coast. Underfoot was a vivid, green carpet of a fine, close-growing herb dotted with tiny, pale yellow flowers. Along the road wash-outs had cut gashes of red soil, burnt orange and sienna in colour. Against the sky-line a rounded hill stood up, bearing a row of huge, towering crosses with a wrack of clouds flying behind them. At their feet was a maze of small crosses, a Chamula cemetery.

Shortly we came to the first of their settlements, a group of very neat houses with high, pyramidal thatched roofs, truck gardens close to the houses, the whole carefully fenced in a square, and across the road another fenced square of wheat and corn. Outside, a flock of their sheep was grazing, watched over by a woman in a black wool *huipil* belted with a deep red sash and decorated by a tuft of crimson wool in the middle of the chest. Her black hair was done in two braids, wrapped in heavy, crimson ribbon, then coiled on her head like a turban.

Beyond this was a succession of small, green valleys of fine grass, each with a stream in the center, many yellow flowers, and the ridges between clothed in pine and live-oak. The flocks of sheep and cattle were guarded by herders dressed in black, sleeveless tunics over

longer, creamy-white wool kirtles with red sashes at their waists. Their heads were bound with white kerchiefs, flowing behind, and some wore the stiff-brimmed straw hats with close-fitting crowns, decked with ribbons. Their legs were bare to their sandals, which had high backs reaching sometimes up to their calves. They leant on long staves, watching us ride by with none of the furtive or humble appearance that marks so many of these Indians. Here and there over the tops of the trees we saw smoke rising, and the roof-tops of other groups of houses.

The road began to wind along beside cliffs, falling away on one side. Ladino houses became common. Here and there were little stands, beside the broad, beaten track, offering various refreshments.

Fig. 334—San Cristóbal, Chis. Huistan Indians.

Then we came into traffic of all sorts, Mexicans a-foot and a-horse, bullock carts, strings of Indians, and Chamula pack-trains. The afternoon sun was hot, but our horses kept their vigor, and as for us, the excitement of this strange country that lay behind the Mexico of the books held us spellbound.

The roads in from the various neighboring villages and towns converged into a trunk highway, twenty or thirty yards wide, with a sheer cliff of tough, mortar-like clay on one side and a steep drop to a ravine on the other. Here we saw all the traffic of the Highlands, every tribe that traded at San Cristóbal. Tenejapeños shuffled by in single file bearing heavy packs, usually under com-

mand of a Ladino man or boy. There were Indians from Cancuc, and once we saw a Tenangero. Chamulas were plentiful, with mules or tump-line loads of their products, wool, blankets, vegetables, grass, wood, and leather. The women carried babies on their backs or slung in front if they had burdens; children just old enough to walk trailed along, dressed like their parents in miniature. Indians from Sinancatan, related to the Chamulas, wore tunics of creamy white with a fine red stripe. The Zotzil-speaking Huisteños were dressed in cotton shirts, always ragged, the long tails of which, caught up under their sash in front, served for trousers. They wore very small straw hats with streamers, stuck onto one side of their heads and tied on with a string (fig. 334). The explanation of this parody on British sailors is that their patron San Martin at Huistan wears such a hat. The women wore the usual blue skirt and embroidered blouse, with sailor-hatted babies nodding over their shoulders. We saw men of Amatenango with their enormous loads of pottery, San Bartolomés from near Comitan, breeked like Dutchmen, their cotton clothes dotted over with red spots, Ladinos walking or riding, fine dandies in big hats with a clean shirt wrapped in a towel behind their saddles, trotting showily into town on their finest horses, muleteers from Oaxaca in tight-fitting breeches and huge sombreros, with beautiful serapes slung over their shoulders.

The road turned abruptly, bringing us around the cliffs to a view of the valley and San Cristóbal at last. We looked down into a little bowl ringed with green mountains. Around the edge was a band of meadows cut by streams with scattered white farm-houses, a grouping of white walls, red roofs, green trees, and the domes of twenty-two churches. On a hill, as steep as any pyramid, just behind the town, the little temple of San Cristóbal himself looked down over the town.

The road became a cobbled street, the shingled, white houses closed together and took on red roofs. We trotted past block after block of the smallest shops in the world, mere doorways, in which hung every imaginable Indian product or thing that an Indian would buy, while natives of every village in the highlands bartered at the doors. The streets debouched into the plaza, cool with the massed green of camphor trees, beside the cathedral with its cream-coloured walls and terra-cotta pilasters. Around in front of the modern and ugly Palacio Municipal, to the dark, arched doorway of the Hotel Español, we clattered into a shaded, flowery patio and dismounted at last in San Cristóbal las Casas.

Chapter XVII

THE HEART OF THE HIGHLANDS

San Cristóbal las Casas, capital of the department of that name, is a town of twelve to fifteen thousand inhabitants. It is distinguished for its charming Spanish houses inhabited by charming Spanish people, its churches, twenty-two of them, all beautiful save one modern structure, and the endless flow of Indians through its streets. The old name for this valley was *Jovel*, "The Place of Long Grass." When in 1528 the Spaniards conquered this district after severe fighting, where the war-like Aztecs had never penetrated, they chose this valley for their town. Charles V gave it the

Fig. 335—San Cristóbal, Chis. Church of Santo Domingo.

name of Ciudad Real, with a special coat of arms in recognition of its loyalty. It remained the capital of the State, under the Viceroyalty of Guatemala, and later under the Mexican Republic, until the seat of government was moved to Tuxtla Gutierrez, a place more easily reached from Mexico, and accordingly easier to control. The name was changed to San Cristóbal, after the patron saint, and Las Casas, in honour of the great missionary and friend of the Indians, Fray Bartolomé de las Casas.

The town is old and unspoiled. The people are comparatively blond. Politically and in their daily lives they are conservative of the old régime. At the same time, this is a tremendous Indian center. Counting the whole country round about, it may be safely said that the Indians outnumber the Ladinos by a good margin. Here we could observe to the fullest that intimate contact of two distinct cultures, economically knit by the closest ties, bound by a partial community of religion, and yet each effected by the other to an incredibly slight degree.

Beside the Cathedral, occupying the rest of that side of the Plaza is a fine old church of rather massive Spanish Colonial construction, well proportioned, with a very perfect handling of mass leading up

Fig. 336—San Cristóbal, Chis. A corner of the Plaza.

to the curve of the dome. Such a church is in every way distinct from the box-like structures put up in Indian villages and small, modern towns. It is, too, utterly different from some of the recent atrocities in stucco Gothic, of which even San Cristóbal presents one example. It looks old, that church, it tells of Spain in the days of its vigour and massive solidity of religious faith (fig. 335). There is nothing Indian, and nothing of the modern compromise of Indian and European about it. Men of Conquistador blood built it. In front of this church, on the curb, black-cloaked Chamulas sit all day selling cakes of salt. Whenever one passes one sees an Indian or a couple, man and woman, perhaps with their children, going in to pray—Huisteño, Sinancateño, Tenejapeño, Chamula, any tribe you

choose to name. And the curious thing about it is that the Indians *belong;* there is no disharmony, they and the Spanish architecture, and the heavily paved streets, and old haciendados with grey eyes, aquiline noses, and brown, sweeping mustaches, all fit in together into a most natural picture. The reason probably is that all are old, pages of history revived. The Spanish things date back to a long-past, gallant century; the Indians recall a time when the red paint was fresh on the walls of Toniná, and its temples sweet with the smell of incense. The Indians have taken the machete, wool, flint-locks, distilled spirits, and saints from their conquerors. In return they have given corn, tobacco, and sandals. Otherwise, roughly speaking, the two cultures run on side by side, independently.

Fig. 337—San Cristóbal, Chis. A street full of Indians.

Economically, the matter is different. San Cristóbal could not exist without its Indians. They provide the food, the wool, and the flowers. They bring up the foreign goods from the lowlands and over from Guatemala, on their backs or with their pack-trains. They furnish the labour for the ranches whose varied products are the medium of export and exchange. Without them, the churches and old houses would never have been built; did they never get into trouble and go to jail, there would be no one to weed out the long grass from between the cobble stones. One whole street and a good part of the market is devoted to stores for the Indians. Their purchases and exchanges maintain the tide of smaller commerce.

San Cristóbal is thus dependent on its Indians; to them the town is a convenience. Should it cease to exist traders would still bring

them some of the goods of other tribes, and from outside, but at much higher prices. Here they buy knives, machetes, the heavy woolen *chujs* from Guatemala, flints, gunpowder and muskets. The wide market for their goods that the Chamulas find and the distribution of Amatenango pottery is in part due to this center. The Chamulas, however, conduct a big market of their own on Fridays, where they do much of their trading. Undoubtedly the twelve thousand odd Ladinos concentrated here, and the many others in smaller towns and ranches all over the Highlands who depend on San Cristóbal for their supplies, represent a source of wealth for the more progressive tribes.

FIG. 338—San Cristóbal, Chis. Chamula Indians.

On the other hand San Cristóbal is also, to the Indians, the center of a government which they still regard as alien. In the Cancuc Uprising of 1712 the united Tzeltal and Zotzil Tribes started with the then Ciudad Real for their goal. It was the men of rank in this town who came before the government authorities saying that as their forefathers had conquered these Indians once, so they could conquer them again, asking for permission and arms to go against them. These gentlemen had the uprising checked, if not already defeated by the time the troops arrived from Guatemala.* In the most serious Zotzil Uprising of 1868 San Cristóbal was again the goal. Indeed, it is a miracle that the town was not sacked. A force said to have amounted to 5,000 Indians was in the outskirts, the little company of troops, 300 in number had been scattered, the civilian forces fled in panic. Nightfall brought an end to the attack, but no one knows why the Indians failed to enter and sack the town on the following day.

That uprising was perhaps unique from the fact that for once the Indians were as well armed, or the Ladinos as poorly, as their

*Pineda, 1888.

opponents. Both sides were equipped with muzzle-loaders, lances, and machetes. Thus put on an equal footing, the Indians showed themselves well able to hold their own in hand-to-hand fighting.*

Since then there has been no serious trouble. There was a threat of a revolt in 1915, started by the Bachajon, but the ringleaders were caught and hanged before it could materialize, although the Indians had already begun to collect arms. Indeed, the increase in sales of powder and lead at San Cristóbal was one of the signs that gave warning. All of these rebellions have centered around some kind of religious revival or new creed.

Fig. 339—San Cristóbal, Chis. Indians of Sinancatan, in front of a store.

Thus San Cristóbal presents a mixed aspect to the native people of Chiapas, a trading and religious center, and yet the goal of any uprising. At present they trade there peaceably enough, and their intercourse with the shopkeepers is friendly and pleasant. Trade has been hurt, we were told, owing to the freedom with which Chamula labour had been commandeered in recent years, resulting in an increased use of their own market.

For us, after our long ride, our twelve days in San Cristóbal were a heavenly holiday. We worked up our notes, had pictures developed, and saw the sights. The days were cool and pleasant, with occasional showers of rain, the nights were sharp, the early mornings very cold. We visited the street of tiny trading shops two and three times a day, strolled through the market, buying a roomful of flowers for fifty cents, looked at the churches, talked with the people, listened to the concerts on the Marimba and by the regimental band that were of daily

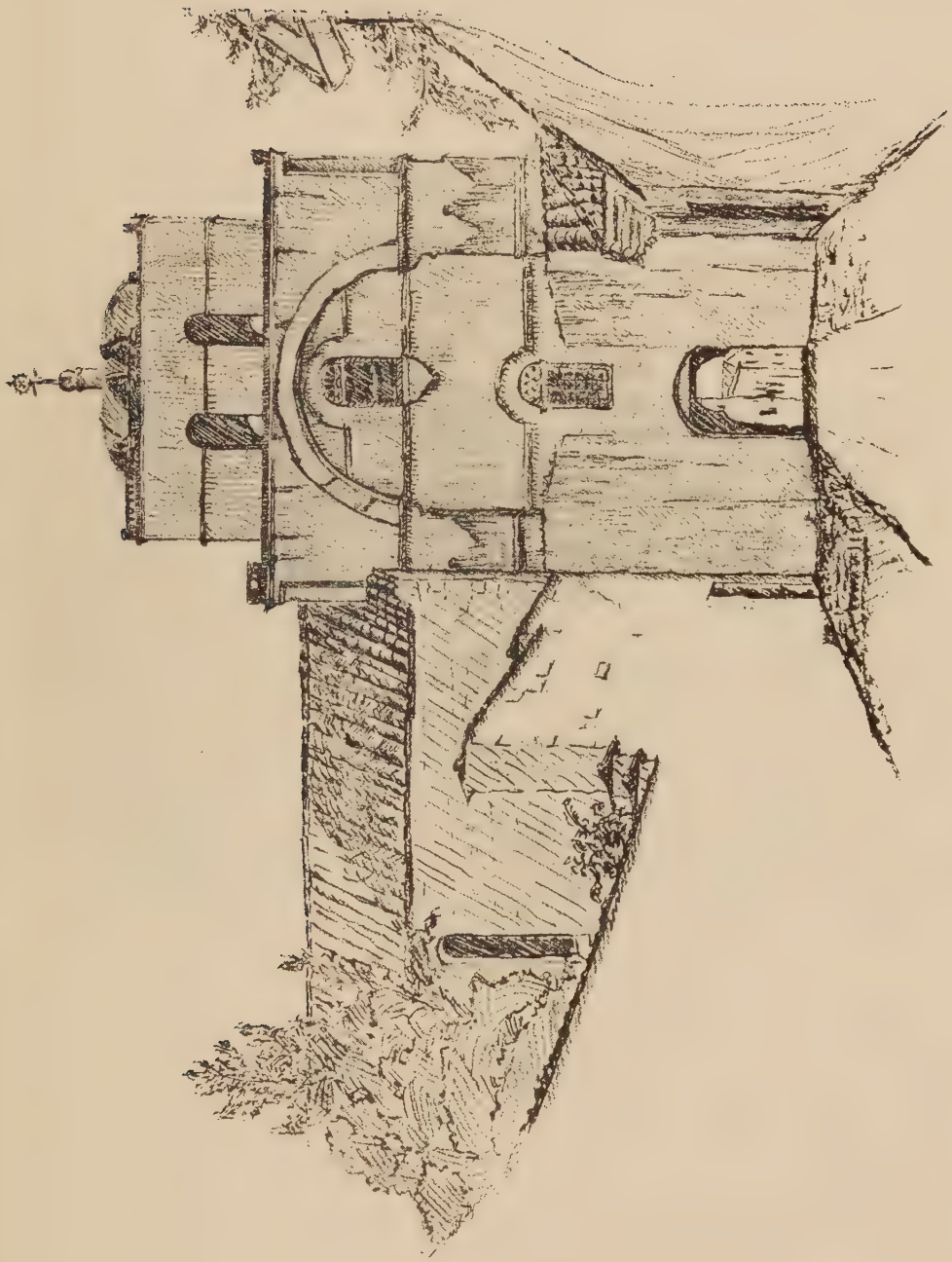
*Pineda, 1888.

occurrence. Blom spent much of his time investigating the libraries of the town, all too many of which had been scattered during the recent revolutions. The writer did an insufficient water colour of the Cathedral, and had better luck with a pencil sketch of the Iglesia del Carmen (Plate VII). One day we taught Lazaro to eat cherries, buying his sombrero full for a nickel. Another day we bought him peaches. Our horses rested and gained strength in a pasture outside; we did the same in town. All of us blossomed out more or less—under Tata's care the horses' coats became glossy; we equipped ourselves with fine, horse-hair hat bands and cords, and had our saddles trimmed with copper; Tata bought himself a very

Fig. 340—San Cristóbal, Chis. Indian market in the street.

handsome new sombrero with a red and green design around the brim.

The very name of San Cristóbal brings up a host of memories, from which one must select with rigour, for it is not always possible to make a reader feel the charm of a place. One remembers the hotel on the plaza, an old house with stone mermaids at the corners carved in early Gothic style, the good entertainment of the Hotel Español, the big iron-studded doors of some houses with naive knockers in the form of snakes and bulls, a baseball game, very lively and well played with full American vocabulary, the many church bells, the shops of the silver-smiths and harness-makers, all these and a host of other small impressions crowded into a few days, with the



old Indian and the old Spanish for a background, added together make up San Cristóbal.

Our large collection of film was developed, numbered and filed. Copies were sent to friends along the back trail, and letters and reports were written. In between, visits were made to the local students of antiquities. A talk was given to the students of the high school, and pleasant moments were spent with Bishop Anaya and Father Agapito Martinez, a man versed in the local dialects.

The former Bishop Oroszco y Jimenez had for years collected documents on the history of Chiapas in the Archepiscopal Palace,

Fig. 341—San Cristóbal, Chis. Chamula women.

but in the shifting tides of revolution this unique library had been destroyed, the books thrown in the street and sold by the pound. A similar fate has struck the manuscripts of the Pineda family. One of its members had taken a very active part in revolutions of late years as leader of the party opposing the government. Therefore when Federal troops entered San Cristóbal they occupied the Pineda house, and used all the manuscripts of three generations of students of the ancient history of Chiapas to kindle fires.

The high school has a small library containing little of historical interest. A good library was found in the house of the late Don Flavio Paniagua. Don Flavio was teacher of history in the high

school, and had collected material on the history of the State of Chiapas which he had printed in three volumes, but the book was never placed on sale.*

The daughters of Don Flavio courteously opened the library for me, and I spent several days working there. It was the library

Fig. 342—San Cristóbal, Chis. Huistan Indian in the door of the market.

*Flavio Antonio Paniagua: "Documentos y datos para un diccionario etimologica, historico y geografico de Chiapas."
Vol. I., 1908. Extracts relating to Chiapas from: Fr. Antonio Remesal, Fr. Nuñez de la Vega, Fr. Tomas Gage, Fr. Jesus Margail, Fr. Domingo Juarros, Garcia Pelaez, Canonigo Dr. M. Robles, José Mila.
Vol. II., 1910. El descubrimiento de America por los Griegos, Noticia historica de Soconusco, Bosquejo, historico del Soconusco, Manuel Larrainzar, Matias Romero.
Vol. III., 1911. Votan, Quetzalcoatl, Chiapas y Soconusco, Manuel Larrainzar, R. Cedula de 8 de Octubre de 1760, Suspension de Pago de Sinodos al Sr. Dr. D. Juan de Vargas, Bosquejo historico de Matias Romero.

of a man with many interests. Here were books on history, there rows of light novels. Working my way through from one corner of the room, I reached one bookcase with glass doors. On the backs of the books I saw that here was the cream of the collection, manuscripts by Don Flavio and rare books. I requested the ladies of the house to give me the key, but they gracefully told me that that particular bookcase could not be opened. It stood as their father had left it and would remain locked until they passed away. In vain I tried to persuade them, in vain I had intimate friends of theirs speak on my behalf. They were unmoved and the bookcase remained closed.

Among the many interesting items in the Paniagua library were large collections of Chiapas newspapers dating as far back as 1856.*

On the 19th of July we packed our equipment, again reducing it to the least possible, and sent our collections of Chiapas textiles, etc., home to Tulane by way of Tuxtla Gutierrez and the Pacific Railroad. On the following day we trotted briskly out of San Cristóbal the Beautiful. Soon we reached the edge of the mountains and looked back towards the town, lying surrounded by pastures like an island in a green lake. Then we entered the pine forests and ascended the ridges which enclose the San Cristóbal basin. It was like riding through a magnificent park. The trail was broad and good, and progress was rapid. After some hours we reached the descent to Teopisca. From the top of the pass the country opened up before us, and we looked down on the small plateau on which Teopisca is located. Farther away we saw the still lower valley of the Rio Grande de Chiapas, "Tierra Caliente," the Hotland, as it is called. This great river has its source in the highlands of Guatemala and runs in a northwesterly direction through the length of the State of Chiapas. Just before reaching Tuxtla Gutierrez it turns north, taking the name Mexcalapa, and runs through a cañon with vertical walls over 700 meters (2,000 feet) high. Further down it enters the State of Tabasco, and finally empties into the Mexican Gulf by Frontera under the name of Rio Grijalva.

Shortly after reaching the level valley bottom we entered the town of Teopisca, home of the Votanides.

Votan was a god or hero of the ancient inhabitants of Chiapas. Like Kukulcan, the Hero-God of the Maya, Votan landed on the shores of the Gulf and wandered inland. He was the organizer of the people, made laws, and gave them their calendar. Nuñez de la Vega tells us the following in his Constituciones Diosesanas:

"Votan is the third ruler [Gentil] who is placed in the calendar; and in the historical book written in the Indian language are named all the stopping places

*See Appendix No. VIII.

and towns where he was, and to these times in the town of Teopisca there have been generations [people] which they call descendants of Votan [de Votanes]. Furthermore it says that he is the ruler of the "Hollow Tree" (which they call Tepanaguaste) Tepanaguaste-Teponastli, wooden drum; that he saw the great wall (which is the tower of Babel); that by the orders of Noah, his grandfather, he went from the earth to heaven; and that he is the first man whom God sent to divide and distribute this land of the Indies and that there where he saw the great wall was given to each people its different language. It says that he was in Huehuetan (which is a town in Soconusco) and there he placed tapirs and a great treasure in a dark house which he made by blowing and appointed a woman with "tapianes" to guard it. This treasure consisted of some clay vases sealed with the same clay, and of one room in which was carved in stone figures of the ancient Indian rulers which appear in the calendar with chalchihuites (which are hard green stones), and other figures of superstition, and all was taken out of a cave and the same Indian woman delivered it, as did the "tapianes," or her guards, and in the square of Huehuetan they were burnt in public when we visited said province around the year 1691. All the Indians worshipped this Votan very much, and in some provinces they called him the heart of the people.

Note in the margin of Nuñez' book. "This cave was discovered by the bishop near the town of Tlacoaloia, which is near the one of Huehuetan which signifies 'town of old men,' perhaps alluding to the figures of those who were in the clay vases in the cave."

We therefore eagerly looked around for signs that might indicate a place of worship of the ancient god. A cave near the town was investigated, but we found nothing to indicate that it had been used for habitation or worship, not even a few potsherds.

We were quartered in the house of a local storekeeper, Don José Mariano Alvarez, and great was our joy when we discovered that he considered himself the local historian. He gave us a small writeup on the town, which we give in translation:

"Under the Colonial government the town of Teopisca was famed for its weavings, and up to this day a few looms are still working, manufacturing a common cloth known by the name 'creolla.' The colonial government granted the town vast lands for the raising of cotton, lands bordering on the finca Concepcion Valunhuizthi, where are the ruins 'Santoton,' the El Rosario where the ancient and beautiful font from the legendary ruins of Ostuta is still in existence—the ruins of this place are still to be seen on the granted lands—on San Bartolome, which is still known for its weaving industry, and towards the east and north the Teopisca lands border on the lands of Amatenango and San Cristóbal Las Casas.

"The aboriginal inhabitants, a people of war-like character, live today on parts of the original land grant which is known by the name of San Diego la Reforma. They abandoned the town of Teopisca around the years 1868 to 1870 in order to settle in the said place in order to live absolutely separated from all Ladinos. With them they carried their archives in which there is said to be rare documents, among which is one relating to a treasure which they believe to be buried in the Jun-a-queren mountain to the southeast of the Sontehuizthi mountain, and to the right of the Amohuizthi mountain.

"In 1915 a man from Teopisca living in Quetzaltenango invited me to the expenditure of 300 pesos, for which sum he would extract the original archives of the

town of Teopisca from the National Library of Guatemala, but my precarious condition did not allow me this pleasure. A year ago this man died in Quetzaltenango."

This for our friend the historian. During our talks with him he confidentially told us that the treasure could be located by some cacao trees and a waterhole. He also disclosed that he had made an attempt to find the treasure.

Don José told also of ruins of buildings by Copanaguaste, and that there were carved stones at Concepcion Valumhuisthi.

In the migration myth of Votan, we see that he departed from Valum Chivim, and passed through Valumvotan. Brasseur de Bourbourg tells us that he visited some large ruins called Valum-Votan about two leagues from Teopisca.*

Fig. 343—San Francisco, Chis. Stelae.

Our road lay towards Comitan where large Maya ruins were reported. The season was advanced, and we therefore could not investigate the reports of Don José and Brasseur de Bourbourg.

Through the large Indian town of Amatenango we now rode on towards the southeast. In the village street the Indian women were burning pottery, and we had much trouble in steering our pack animals around large squares of clay vessels placed in rows around open fires (see fig. 333). On the far side of the village we crossed several irrigation ditches. Streams from the mountains have been directed into a system of ditches, running across the Indian cornfield.

Then we left the broad Amatenango plateau and entered narrow mountain valleys. We followed a broad road along the side of the valley, a recent attempt to build a cart road, abandoned before it was finished. It would not be difficult to build a road from San Cristó-

*Brasseur de Bourbourg. Popol Vuh, 1861, Plate LXXXVIII, Note 3.

bal through Comitan to the Guatemala border, and such a road would open a rich country.

Late in the afternoon we reached the finca San Francisco, a large estate in pine forests surrounded by extensive pastures. In front of the main house is a spacious open green where stand two limestone pillars (fig. 343). One has been spoken of by Berendt and reported by Brinton in his article "The Pillars of Ben." It is a plain slab of rough limestone. In ancient times figures and hieroglyphs probably were painted on its surface, as was the Maya custom.

We took refuge in a small house for travellers, which was in a bad state of repair, its floor covered with dust and dirt, as are many of the "hotels" in those distant parts of the world.

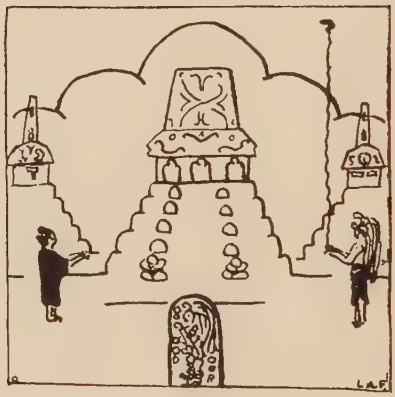
Fig. 344—Comitan, Chis. 5th Avenue.

About 10 o'clock in the evening we were awakened by stamping of mules and loud cries. The mail was coming! Three times a week a long string of mules carry the mail into this back corner of the world. Week after week, year after year it comes regularly. One does not realize the magnitude of our modern mail system until one meets the mail carrier far away from trains and steamers.

Before dawn the mail was again under way, and we rounded up our animals just as the sun was rising over the mountains. One horse had gone astray, and it took us several hours to find it. At last we were ready and started on the last lap for Comitan.

Just before reaching the town we climbed over a range of hills. It commenced to rain and we enveloped ourselves in our ponchos. Pretty disgusted and wet, we reached the first scattered houses of the town, when our bad humor suddenly left, as we saw on a street corner the bold lettering *"Quinta Avenida,"* "Fifth Avenue." One

evening, far back on the trail through the forest we had jokingly said that we would like to run a pack train down Fifth Avenue to the Plaza Hotel in New York. Here we were on Fifth Avenue riding up to the hotel—not in New York, but Comitan, Chiapas. (Fig. 344).



Chapter XVIII

THE COMITAN VALLEY

Comitan is the capital of a small district of its own. It lies at the southwestern end of a broad and fertile plain enclosed by mountains about 1,600 meters (4,800 feet) over sea level. Its 10,000 inhabitants live from the products of the land, cattle raising, corn crops, the manufacture of a widely famed liquor "Comiteco," and a considerable trade with nearby Guatemala. Some of this trade with Guatemala has a special thrill and appeal, as the goods are smuggled across the border. The Mexican Government maintains

Fig. 345—Hun Chabin Pyramid, showing place where Mr. Quintero has excavated.

a customs station here, and mounted gendarmes patrol the border—but the border is long, the mountains wild, and the forests thick.

In the dry season the nearest railroad is reached by Tapachula, on the Pacific side, after six days ride through the rugged Sierra Madre mountains. Along this trail the same river has to be crossed twenty-six times. When the rains swell the river, all traffic with the outside world has to go by San Cristóbal Las Casas and Tuxtla Gutierrez to the railroad station at Ariaga, also on the Pacific side. Going light this trip can be done in seven days; pack teams often take as much as twenty-five days.

Comitan is famed not only for its drink, but for its pretty girls as well, and should be more widely known for the hospitality of its inhabitants. We felt at home there, and were introduced to a number of its citizens, who, immediately upon hearing of our quest for antiquities, set out to help us make investigations.

Señor Mauro Quintero Brisac, a most enthusiastic local archaeologist, without hesitating placed his material at our disposal. He had conducted a large excavation in the big hill named Hun Chabin directly back of the town (fig. 345). E. Seler mentions this group of ruins and gives a photograph of the mounds on its top. He also states that many burials were found when the slopes of the hill was laid under culture.*

Fig. 346—Hun Chabin Pyramid, showing stairway.

The side of a large hill has been terraced in ancient times for agricultural purposes, and on top of it are several mounds arranged around courts. From the top of these mounds one looks out over a spur in the direction South-70-East, on which is a smaller mound, and beyond this, on the other side of a gorge in which runs the Tzatzalanton Creek, lies the town Comitan. A huge valley stretches to the north and east, and far away one can see the highlands of Guatemala.

About twenty meters down from the plaza, on top of the hillside, Don Mauro has made a large excavation, uncovering part of a perfectly preserved stairway, the exposed part of which is 4.5 meters wide, and has 15 steps, tread and rise both 20 cm. It was

*Seler, E., 1901, Page 4; 1915, Vol. II., Page 227.

covered with a 2-meter thick layer of rocks as shown in Fig. 346. The agricultural terraces led Don Mauro to believe that a road winding around the mountain in spiral form had been built in ancient times, and from the cover of several meters of fill he concludes that the ancient builders had covered up their buildings when attacked by enemies, a rather laborious and absurd procedure for people under the pressure of war. From early chroniclers and also from excavations we know that the Maya from time to time enlarged their buildings by adding another layer of material to the top of standing structures. This is undoubtedly the case here; an old stairway was covered in order to enlarge the levelled terrace on top of the mountain.

FIG. 347—Hun Chabin, Chis. Human jaws found in pyramid.

Don Mauro also uncovered, in the top of a small mound, a burial containing several sherds and a human lower jaw. He showed us this together with a bone ring which he stated had been found lying on the jaw in the place of the left wisdom tooth. We show a photograph of this jaw with the bone ring exactly as Don Mauro states he found it (fig. 347). At first it might be taken for some kind of ancient dentistry, but we are more inclined to believe that the bone ring is an ear-plug which has dropped into this place.

On one side of the mountain we were shown a small cave, which appears to have been used as a quarry, and at Don Mauro's house

we saw the collection of potsherds from his excavation. With much care he had gathered everything that came in his way, and also taken notes on his work. When searching for a water supply for the town, Don Mauro had noted the structures on top of Hun Chabin, and with great enthusiasm and assisted by voluntary labourers he commenced to excavate. On the eastern side of the hill he discovered several sets of stairways leading to terraces with cement floors, and several walls 50 cm. thick. In no place did he note the use of mortar as a binder.

FIG. 348—Pottery objects from the Comitan Valley.

Don Gregorio de la Vega and his son ransacked the town for antiquities, and many houses were opened to us, disclosing a multitude of clay objects, mostly fragments of figurines, and also some objects of cut stone (fig. 348).

FIG. 349—Comitan, Chis. Vase with glaze and jar in shape of conch shell.

In the house of Don Reynaldo Gordillo Leon we saw two interesting pieces of pottery: one was shaped like a conch shell, a human figure emerging from the opening; the other, a vase with a

brown metallic glaze. Pieces with a metallic glaze like this have been found in various parts of the Maya area, chiefly in Copán, and one sherd was found during excavations of the southern Temple of the Ballcourt at Chichén Itzá, showing that this ware was widely distributed by trade. The glaze is accidental, the clay of which the pottery is made containing a slight amount of lead.* (Fig. 349).

The first jar mentioned is of particular interest. Both in the Maya Codices and on the monuments we see pictures of gods emerging from the inside of conch shells. The most notable representation of this kind is on the Tablet of the Foliated Cross at Palenque.†

Fig. 350—Comitan, Chis. Head of limestone.

At the same place was a large head of limestone (fig. 350), and a beautiful lance-head of flint (fig. 351).

Mr. E. Kanter from Finca Chacula in the Department of Huehuetenango, Guatemala, showed us two small copper ornaments from his place, one representing a human head, the other a frog. These are all he retains of his father's famous collection of antiquities from Chacula, described by Seler, part of which is now in Berlin, the rest destroyed.

Pleasant days were spent in Comitan, studying and visiting our newly acquired friends. One of them was the Padre, Belisario

*Saville, M. H., 1916.
†See Spinden, H. J., Maya Art, 1913, Page 83, Figs. 108 and 110.

Trejo, a most jovial man who had us for dinner one evening and told us many amusing things of the life in the small town. He said that the town was so peaceful and quiet that only two things were heard, the bells of the church and the tongues of the women. Padre Trejo is a student having a profound knowledge of the language of the Chamula as well as the Tzeltal Indians. He was the proud possessor of a copy of Nuñez de la Vega's book, and allowed us to use it during our stay.

In this book is a passage as follows:

No. 35, XXXI. "BEEN is the thirteenth ruler [Gentil] of the calendar in whose historical page written in Indian language it says that he left his name written on the standing stone which is in a place, which is in the town of Comitlan [Comitan] and in said pages are written briefly in generations the names of the first Rulers [Señores primitivos] and ancient ancestors, the wars which some had with others and the soldiers on either side . . ."

Fig. 351—Comitan, Chis. Flint Lance Head.

I was invited to speak on the archaeology of the region in the local theater, and naturally drew attention to Bishop Nuñez' remark, asking if anybody knew of such a stone in Comitan, but apparently nobody did.

Many are those who should be mentioned for their kindness to us, as Don Ernesto Pinto, who donated some books to the Department library, as did also Don Mariano Ruiz, a learned man, earnest student, and beloved teacher of the children.

As Comitan was the Custom Office for crossing the border to Guatemala, we took our equipment to be inspected. This was done thoroughly and courteously. The Chief of the Customs furnished us with passes to the *gendarmes* on the immediate border, as well as with a letter as follows:

"A quien coresponda:

El C. Frans Blom, arqueologo de este puerto, con rumbo a Guatemala, Guat., sin llevar en su equipaje antiguedades del pais.

Lo que se hace constar a pedimento del interesado y para los usos que le convengan.

SUFRAGIO EFECTIVO, NO REELECCION.

Comitán, Chis., 27 de Julio de 1925.

El C. Jefe del Resguardo.
(Firmado) Anastacio Rangel G."

"To whom it may concern:

The Citizen Frans Blom, archaeologist, travels from this place on his way to Guatemala, Guat., without carrying away any antiquities of the country in his baggage. The which is certified on his request and for the uses he may make of it.

SUFRAGIO EFECTIVO, NO REELECCION.

Comitan, Chis., July 27, 1925.

The Citizen Chief of the Customs.
(Signed) Anastacio Rangel G."

The day for our departure from Comitan was at hand. Early in the morning we went for our papers, and were told to return by noon. As we again reached the Customs House, the Chief, Señor Rangel, told us that we would not be leaving that day. All sorts of thoughts flashed through my head—had we forgotten to declare something, or what was the matter? We were led out into the Patio, and there Señor Rangel, smiling broadly showed us a Maya stela, a monument broken in two pieces, but with a well preserved figure carved on its front. No, we should not be leaving at once.

As far as we could learn the monument formerly had been standing erect. Then for some time it had been used in the stone floor of the yard, and with time was covered up by dirt. My remark at my lecture had set the memory of an old man working and this was the result.

This monument is 1.25 meters long, 30 or 35 cm. broad and 10 cm. thick (fig. 352). On its front a standing warrior is carved. His head is shown in left profile, his body in full front view. In his right hand he holds a lance, in his left a baton. A fantastic helmet adorned with a human face covers his head, and on his feet are elaborate sandals. In his nose is a nose-plug and he has a ring tatooed around his left eye. The carving is crude, and shows a decadent style.

Above and below this figure are two bands of hieroglyphs. The upper band contains four glyphs reading:

A-1 Zero ?; Kin, the sun glyph.
B-1 the glyph which Spinden states indicates an equinox.
A-2 9 Ahau.
B-2 18 Yax.

This gives the date 10-2-5-0-0 9 Ahau 18 Yax, which, according to Spinden, falls on an equinox, the 23rd of September, 613 A. D.

Fig. 352—Comitan, Chis. Stela 1.

In the lower band are eight glyphs, of which C-1 shows a co-efficient of 3, and C-2 a co-efficient of 9.

This is a highly interesting date, falling at the end of the Old Empire. We will discuss its importance later.

It took us about an hour to finish our work with this monument, then we got our papers and rode out of Comitan headed for the Ranch "El Puente," where more monuments were reported.

Leaving the town and crossing a small stream we came out on an extensive plain enclosed by distant mountains. Red barren earth and many waterworn stones with a sparse growth of grass between formed the ground. After crossing a few streams we reached more fertile country, and turned away from the main trail.

Toward late afternoon we reached our destination, and there another pleasure awaited us. In the yard of the Finca El Puente stands a large stela with standing figures carved on both sides, and the top part of another monument lies close by. The manager of

FIG. 353—Tenam, Chis. Stela 1-a.

the finca, Don Enoc Ortiz, who lives in Comitan, had given us the keys to the main house, so we moved right in. After some time we located a boy who was supposed to look after the place, and after still more waiting we got a meal. In the meantime we photographed the monuments.

On both sides of Stela 1 (fig. 353), is a standing priest or warrior in profile, holding a bag in his right hand and arrows or javelin in his left. The person on side a, facing the main house, wears a helmet carved to represent the face of a long-nosed god,

crowned by many long feathers. His shoulders are covered by a feather mantle, his girdle is heavy, and the arrows in his left hand point downward to the right. In front of his helmet is a single row of hieroglyphs, and above his head several rows of glyphs, now all so badly weathered that they could not be read.

On side b, we see another man, taller and more slender (fig. 354). His helmet is not as big as that of figure a, though it too is decorated with elaborate plumage. His chest is covered by a large breast-plate ending in the heads of the double-headed monster so

Fig. 354—Tenam, Chis. Stela 1-b.

often pictured in Maya art. His heavy girdle is likewise ornamented with two heads, which appear more human. On this side of the monument is also a single row of glyphs opposite the helmet, and bands of glyphs along the top of the stone. None of the glyphs on this monument could be drawn as they were all erased by time.

From comparison with monuments found in the ruined cities along the Usumacinta River, and judging from dates found in other parts of the Comitan Valley I venture to suggest that Stela 1 at Tenam dates from around 9-18-0-0-0 of the Maya time count.

Next to Stela 1 stands the top part of another monument which we called Stela 2 (fig. 355). This fragment consists only of the helmet of a figure, on front of which are three grotesque heads, one above the other, flanked by feathers, then a braided design and more feathers.

Not far from the ranch lies a range of hills which form the southern side of the Comitan Valley, and to these we rode next morning. Climbing up the side of the range we reached a series of terraces and mounds, the ruins of Tenam. South of this ridge is a small valley enclosed by the ruins on one side and a semicircular range of hills on the other like a large natural amphitheatre. The mounds on top of the ridge are grouped around Plazas all opening towards the small valley, showing that the builders had taken advantage of the natural landscape (fig. 356).

Fig. 355—Tenam, Chis. Stela 2.

On the western point of the ridge facing east, a large mound supports the ruins of a building. The main mound, though, on the center of the ridge faces toward the small valley and is topped by debris of a totally ruined building. Its stairway leads down to a small Plaza where lies a stela without any carving. The terraced sides of the mound are enclosed by well preserved walls whose stones are laid without mortar. The four lower terraces are of roughly cut stones, the two upper ones of well cut and carefully squared stone blocks, and probably represent a later addition (fig. 357).

Going from the monument just mentioned towards the valley a small building is reached, the greater part of which has fallen, only a section of the southern wall remaining to show the Maya stone mason at his best. Every stone is carefully cut and squared and nearly all are precisely the same size (fig. 358).

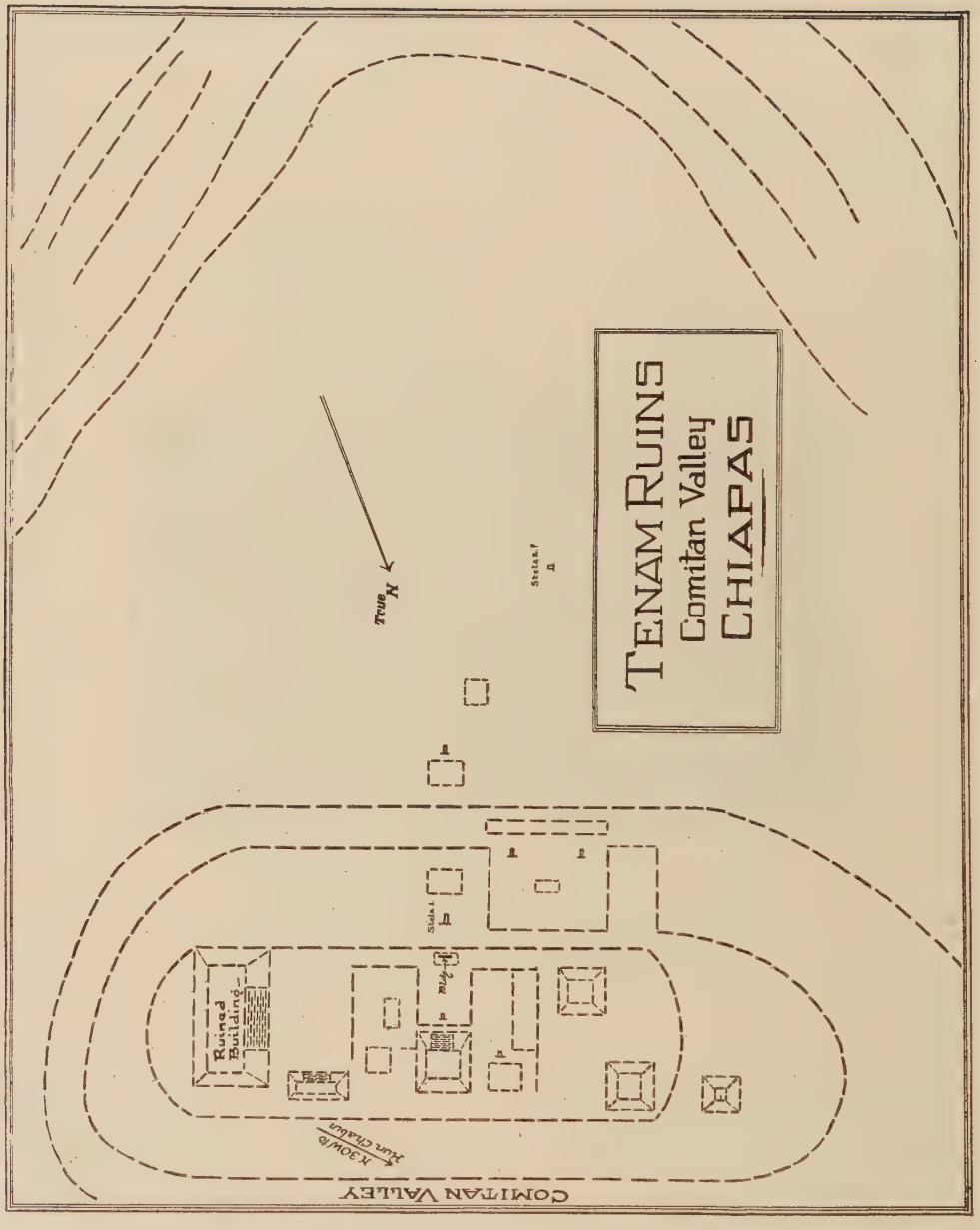


FIG. 356—Tenam, Chis. Rough ground plan of Ruins. Scale 1:2500, approx.

Fig. 357—Tenam, Chis. Principal mound in ruins.

This building stands on the edge of the main plateau with its back to the valley, towards which the hill descends in a series of terraces on which stand mounds. Stela 1, now at the finca El Puente, is reported to have stood south of this building, and several plain stelae were located on minor plazas.

Though Tenam is comparatively small, it again shows us how carefully the ancient Maya selected the sites for their temples. From the top of the ridge one has a magnificent view over the Comitan Valley: towards the northwest Hun Chabin and Niguitic, far away towards the southwest Tepancuapan and Chinkultic, and looking south, the natural amphitheatre, sheltered on all sides by pine-clad hills, lies stretched at your feet.

Fig. 358—Tenam Ruins. Example of Masonry.

Why not be frank and admit that we were getting somewhat worn down? It was now the 29th of July and we had been on the trail since the 14th of March. We finished our map of the Tenam ruins, then saddled up again and headed for the Guatemala border.

The small town Zapaluta lies on top of a small hill, and as we rode up an unusually vertical street La Farge's horse slipped, tumbled over backwards, and fell on top of him. It looked very bad at first, and I feared that at last our good luck had changed; but, fortunately, I was wrong. When he was extracted he presented a badly bruised leg, a watertight metal matchbox squashed absolutely flat, and a broad grin. After that scare we continued our ride until we met several heavily armed men leading four or five others by ropes tied around their necks. We later learned that the captives had plundered Indians who were carrying merchandise from Guatemala to Comitan.

In the evening we reached the large finca Huncaná, famous for its corn, the ears of which grow to about 70 cm. (over 1½ feet). Sitting on the steps of the local store we were telling each other that the next day would see us in Guatemala, when an efficient troop of border police arrived. We started a friendly conversation with them during which they volunteered the information that there were several carved stones on the Finca El Rincón by Lake Tepancuapan that meant we would still have to spend some days in Mexico.

We spent the night in the main house as the guest of the manager, and next morning rode to the lake via Finca Tepancuapan. Throughout this region we noticed artificial terraces running across all small valleys. They must have been built in the days before the Conquest, and for the purpose of preventing the powerful rains from washing away the soil. From between San Cristóbal and Teopisca to Gracias á Dios we noted such terraces (fig. 359).

FIG. 359—Sketch plan of agricultural terraces in the Comitan area.

Near Finca Tepancuapan are several mounds, one of which Seler excavated when he visited this region. There are also innumerable small terraces, which appear to be ancient house sites, scattered all over the huge open pasture by the finca. An excavation into some of them would undoubtedly prove of great interest.

At last we reached El Rincon, The Corner, and surely its name is appropriate. The main house lies tucked away into one of the most beautiful corners nature has ever made of some high vertical cliffs and a lake.

The ranch house lies at the foot of a large mound, and in the yard stands a circular altar. Fragments of several stelae are laid into the stairway leading up to the house.

There are three of these fragments. Number 1 is the top part of a stela, showing a band of somewhat weathered hieroglyphs and

the upper part of a standing figure in left profile. The unusually coarse grain of the stone has caused the glyphs to take a somewhat irregular form. It will be noted that the curve of the left side of the stone has forced the sculptor to push the upper dot of the 12 somewhat down. A fault in the stone between the first and second glyphs in the upper row has also forced him to place the two upper dots of the co-efficient of the second glyph close together. This is a somewhat unusual procedure. The inscription has six glyphs, of which A-1 and B-1 read 12 Ahau 8 ? As a period ending this can be 9-11, 9-14-5, 9-17-10 or 10-0-15-0-0. Dr. Morley is inclined to prefer the latter of these readings 10-0-15-0-0, 12 Ahau 8 Cumhu (fig. 360).

Fig. 360—Chinkultic, Chis. Stela 1.

Nos. 2 and 3 are also carved fragments of stelae found in the stairway. No. 3 shows the legs and feet of a standing person. The feet are covered with jaguar paw shoes.

The caretaker of the finca took us out among the mounds. This group of ruins, named Chinkultic, is of considerable size. It was visited by E. Seler, who speaks of the size of the ruins and of a bowl of glazed ware which he received as a gift.*

Standing on top of the main mound we had a most magnificent view of the surrounding country. To the east the ground sloped gently towards the shore of the Tepancuapan Lake, the east shore of which is a steep cliff covered with forest. To the northeast the lake

*Seler, E., 1901, Page 187.

disappears behind a huge bluff, at the foot of which runs a small creek, connecting several small ponds. The talus of the bluff has been utilized in ancient times. Its top is level, and the ruins of a stairway can be traced from this terrace down to the small stream. Mounds lie scattered all over the country, and all appear to be oriented to the cardinal points (fig. 361).

The main mound faces west, and at its foot are several minor mounds arranged around a court. On a terraced mound running parallel to the main mound stand several stelae.

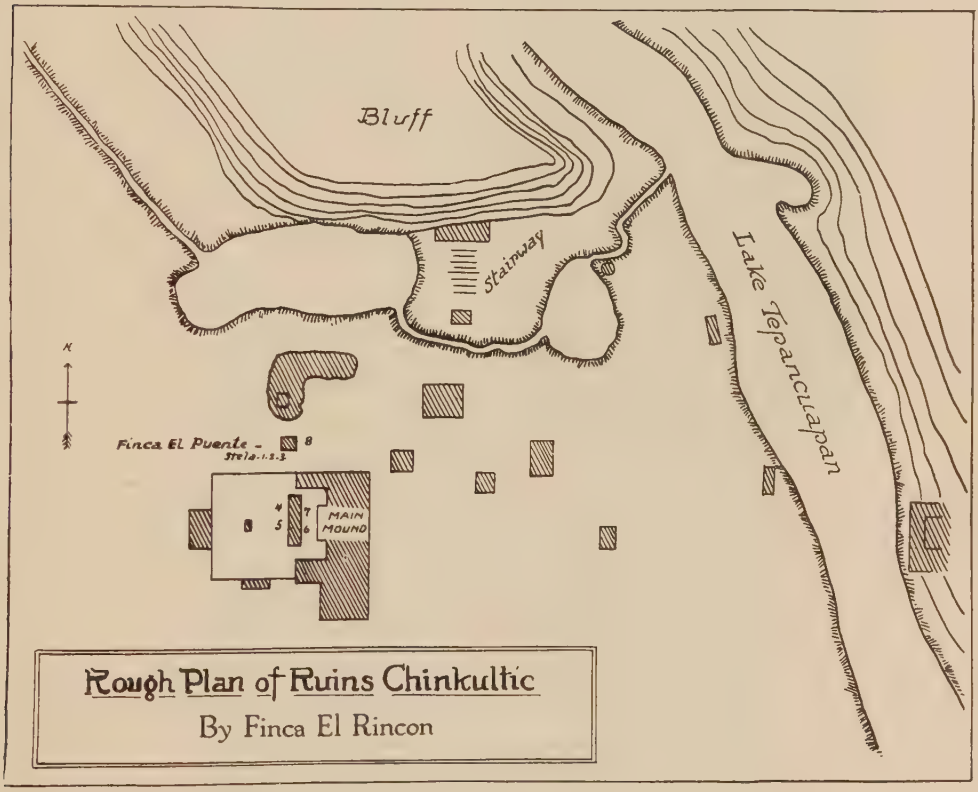


FIG. 361—Chinkultic, Chis. Rough Map of Ruins. Scale 1:500, approx.

Stela 4 is the only monument published by Seler, though he speaks of another. It is carved with the figure of a warrior holding a lance in his right hand and a bag in his left. On his head is the usual feather helmet. The stone is badly weathered, and of the band of glyphs which can be faintly traced above the figure, none could be drawn. The monument leans forward and was difficult to photograph (fig. 362).

Stela 5 stands erect. Its upper part has peeled off, and on its front a standing figure can be distinguished. An old excavation in

front and below the monument leads to a small chamber directly under the stela (fig. 363).

Only the lower part of Stela 6 is preserved. On both its sides one can see carved figures, though they are much weathered (fig. 364).

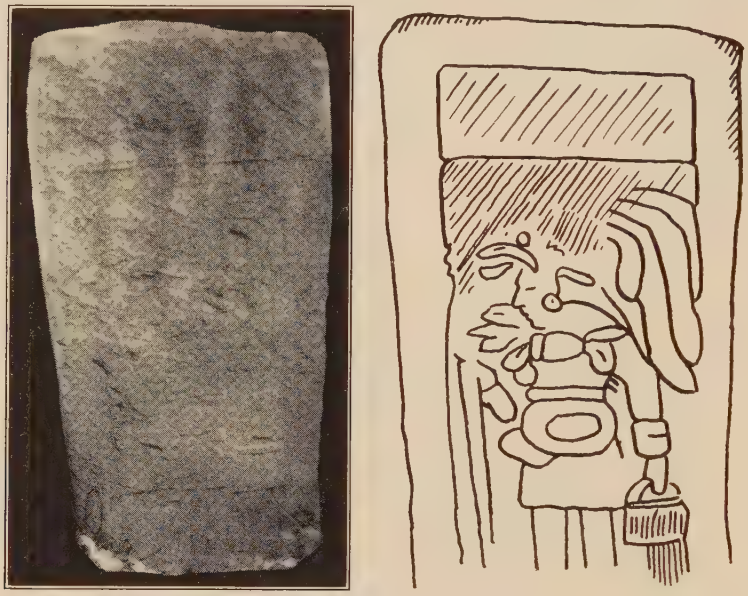


FIG. 362—Chinkultic, Chis. Stela 4.

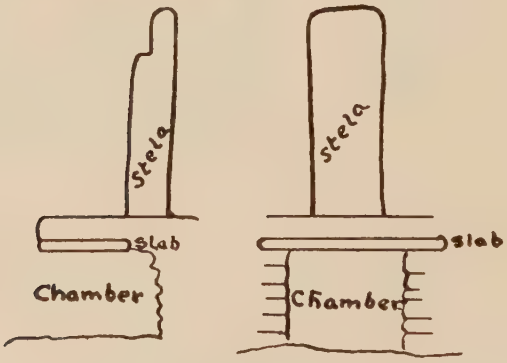


FIG. 363—Chinkultic, Chis. Stela 5 and Chamber beneath.

Stela 7 is complete; carved of a hard limestone it shows an excellent Maya figure. A man stands with face to the left, and at his feet squats a smaller figure looking upwards. The main figure wears an immense, feather-decorated helmet. On the upper part of the monument is a row of three glyphs, and two more are seen to the left of the helmet (fig. 365).

Dr. Morley, to whom all our glyph material was submitted for rectification says, "This is a most unusual inscription, and if correctly deciphered as given below as an Initial Series without the corresponding Initial Series Introducing Glyph, it would be unique.

"A-1 appears to be 9 Baktun, B-1 is probably 17 Katun, C-1 surely is 10 Tun, and A-2 and A-3 show 0 Uinal and 0 Kin. No other glyphs are discernable, and one is forced to conclude that the

Fig. 364—Chinkultic, Chis. Stela 6.

important Initial Series Introducing Glyph as well as the day and month signs of the terminal date were never recorded."

The reading, according to the above, would be 9-17-10-0-0 12 Ahau 8 Pax.

Stela 8 was found on top of a small mound to the north of the main plaza. It lay face down, and when investigated showed traces

of red paint on its lower portion. This naturally made us hope that the entire monument would be coloured, but when it was turned we found that most of the paint had been washed off by centuries of rains. The total length of the monument is 3.75 meters (about 13 feet). The man carved on its front holds a bag in his left hand, and appears to make a curious sign with the fingers on his right hand (fig. 366).

Again on this monument we have a rather striking combination of glyphs. The inscription starts off with an Initial Series Intro-

Fig. 365—Chinkultic, Chis. Stela 7.

ducing Glyph in A-1. In B-1 we have a co-efficient of 18, over what appears to be a Katun head, followed by 11 Ahau in the lower half of Glyph C-1. Glyphs A-2, 3, 4, and 5, in a vertical band before the face of the figure, are so badly weathered that they cannot be read . The date is most likely 9-18-0-0-0, 11 Ahau 18 Mac.

From the top of the main mound we made a rough plan of the ruins and then wandered around to make a rapid study of them. We did not encounter any buildings, but found that several of the

mounds were constructed of huge squared stone blocks. The corner of one of them is shown in Fig. 367.

Again we were in the saddle, this time definitely to leave Mexican territory. Guided by the caretaker of El Rincon we reached the Sacchaná Valley. Here, on the finca Sacchaná, Seler discovered two monuments,* now in the Museum in Berlin, Germany. These monuments are dated 10-2-5-0-0 and 10-2-10-0-0 respectively. We therefore have the following dates from the Comitan area.

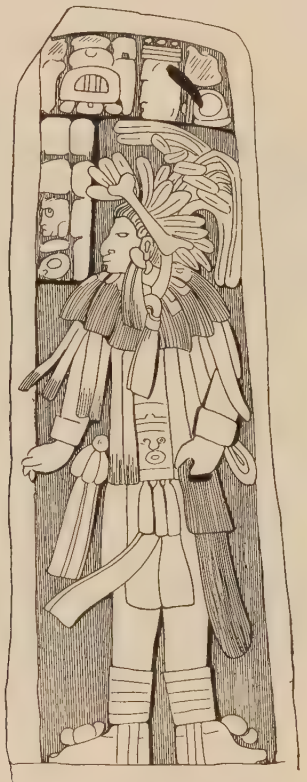


Fig. 366—Chinkultic, Chis. Stela 8.

9-17-10-0-0	12	Ahau	8	Pax, Chinkultic, Stela 7.
9-18- 0-0-0	11	Ahau	18	Mac, Chinkultic, Stela 8.
10- 0-15-0-0	12	Ahau	8	Cumhu, Chinkultic, Stela 1.
10- 2- 5-0-0	9	Ahau	18	Yax, Comitan, Stela 1.
10- 2- 5-0-0	9	Ahau	18	Yax, Sacchaná, Stela 1.
10- 2-10-0-0	2	Ahau	13	Ceh, Sacchaná, Stela 2.

This array of dates shows us that the area was flourishing towards the very end of the Old Empire. Shortly after the cessation of dated

*Seler, E., 1901, Page 23, Fig. 7.

monuments the Maya must have commenced their migration towards the north, to Yucatan. The last dates in the Old Empire area are 10-3-0-0-0 at Uaxactun and Xultun, and simultaneously with Stela 1 at Comitan and Sacchaná we have the first New Empire date in the Temple of the Initial Series in Chichén Itzá, Yucatan.

In a previous chapter we stated that one of the major reasons for the Maya abandoning the Old Empire region undoubtedly was the exhaustion of the soil through their primitive agricultural methods. Many other theories for their evacuation of the southern area have been launched. Some students believe that they were driven out by enemies from the highlands, but we find no signs of war in the abandoned buildings. Time is the cause for the ruined

Fig. 367—Chinkultic, Chis. Pyramid Base.

condition of temples and mounds, and in no place do we find an overlying stratum of cultural objects of another nation. Secondly the Highland Indians are of Mayance stock, and it is more likely that they migrated from the central area towards the mountains during the general break-up.

The learned men must have been the first to leave, taking with them the sciences and knowledge of the calendar count; otherwise, one should think that monuments dated at irregular intervals would have continued to be erected. This is not the case. The exodus was probably sudden and definite.

When the Spanish padres arrived they found that the Maya priests had many prophecies, well known to all the people. We

know what powerful hold the priesthood and the rulers had over common man. We also know what importance round dates, i. e., dates on which periods ended, had among the ancient Maya. It appears likely to me that some prophecy played a role in the migration towards the north, a prophecy which would come true around 10-3-0-0-0, holding all the rulers in fear and making them abandon their homes and seek towards the north.

The prophecies recorded by Father Lizana* were all translated to suit the padres in converting the Indians to Christianity, for example, Hunabku, the great God of the Maya, the creator of the world, father of Itzamna, was simply called "Dios," God. There are many similar cases.

Mr. Ralph L. Roys has recently translated some of these prophecies from a Maya point of view. Based on these translations and on other material, I made some studies upon the subject of the abandonment of the Old Empire region. The studies brought me too far afield for the present report, and it is my hope to publish the results at a later date.

*Lizana, 1893, Page 38, f. f.

Chapter XIX

THE CHUCHUMATANES, GUATEMALA

High mountains loomed up at the end of the Sacchaná Valley. As we drew nearer, we reached a small basin and came in sight of the Cerro Ixbul, a huge hill of pyramidal shape with a stone monument, shining white, visible for many miles, on its top. This is the boundary mark between Mexico and Guatemala.

Groups of mounds scattered around and two ranches enlivened the landscape. The customs house, a small dilapidated hut, was empty. A man living nearby told us that the patrol was out, and we therefore turned our "laissez passer" over to him and rode into Guatemala.

The sides of the Cerro Ixbul are terraced in several places and the boundary mark stands on a small artificial pyramid. Our trail wound over the lower slopes of the Cerro, and soon we came in sight of Gracias á Dios, the ranch house where we were to spend the night.

There was an air of smugglers about the place, a collection of houses much weathered by time and the harsh climate of the mountains. The ranch house lies in a small cañon whose walls are covered with a scattered growth of wind-blown trees.

Seler visited Gracias á Dios and reports some antiquities from there. We found the head of an idol on the edge of a pool (fig. 368).

The mountains are all of limestone, and a multitude of caves has been found, many of which contained stone idols and pottery. Mr. Kanter, owner of the nearby Finca Chaculá did a vast amount of exploration of these caves, and some of his discoveries have been studied and published by Seler. Pottery and small artifacts of the area all show that the ancient culture was Maya, though the idols found in the caves are of an unusually crude type, far inferior to the stone work found in the Comitan area nearby. There are two explanations for this. Either these idols are of great antiquity, antedating the period of the Maya, and preserved for their venerable age; or they are products of the people who lingered in this area after the departure of the bulk of the Maya at the close of the Old Empire.

The day's ride from Gracias á Dios to Nenton, the first town on Guatemala territory, was one of the most dreary of our whole trip. Through a rugged limestone country with sparse vegetation we progressed step by step. For some time we skirted the edge of the Rio Grande de Chiapas basin. We passed a party of Indian traders carrying huge bundles of *palma real* leaves, used for making hats, which they had purchased in the lowlands and were carrying up to their homes in the mountains.

Fig. 368—Gracias a Dios, Guatemala. Small idol standing on edge of a pool.

We reached a picturesque small box cañon, and when we came out of it we saw at our feet the village of Nenton. On the banks of a small river, in a narrow valley with vertical walls lies a cluster of houses surrounded by luxuriant tropical vegetation, a strong contrast to all the country around.

As soon as we crossed the bridge over the river, the border troops spotted our small .22 calibre rifle and took possession of it, but returned it when we had presented our credentials. The Captain of the troops wired to the Jefe Politico of the Department of Huehuetenango, and that same night we received a most cordial telegram welcoming us to the Republic of Guatemala.

The Jefe Politico, as the governor of the Department is called, informed us that he had instructed all authorities on our route to attend to our needs, and, thanks to this order, as well as to the inborn courtesy of the Guatemala people, our ride to the capital of the department became a triumphal march, culminating when we

were received by the President of Guatemala, General Orellana, upon our arrival in Guatemala City.

From Nenton one enters the Chuchumatanes Mountains, a land of narrow, deep valleys, to the bottom of which the sun hardly penetrates. It is a country of pine trees, jagged mountains and vertical cornfields. Here and there lie Indian villages, with their houses built on small terraces, due to the scarcity of level ground (fig. 369). This undoubtedly is an age old custom, and accounts for the multitude of small terraces noted on the mountainsides.

The rivers cut deep gorges in the center of the valleys. Often one sees a town quite nearby, but it takes hours to reach it, as long detours have to be made. The towns of San Marcos and Jacalten-

Fig. 369—San Andres, Guatemala. Houses built on terraces.

ango, for example, lie only a rifle shot apart, but it takes about an hour to get from one to the other. In front of San Marcos is an open pasture on which lie a series of mounds arranged around courts. From this place the trail zig-zags down to the river, and up the steep side of the gorge on the other side to the large Indian town, Jacaltenango.

These big Indian settlements, with their stores and markets, well-built houses, many streets, and comparatively fine town halls, are very different from anything in Mexico. They are governed directly from the capital of the Department, by Ladino *Alcaldes* of real authority. In each town are a few Ladino families living among the Indians, usually in slightly more pretentious houses. Many of the

Indians can read and write, and the schools are not mere pretenses. In Jacaltenango the school-house was the biggest building in the town, next to the Cabildo and Church. Even in smaller places, such as Concepción, the physical aspect of the village was more progressive and more Spanish than any Mexican tribal settlement we had seen (fig. 370). At the same time, the Indians are tremendously conservative of the old culture. Each tribe has its own costume, involving elaborate and fine weaving. On the road we passed women with the gaudiest blouses imaginable, very distinct for each village, and men whose sashes were real works of art. The dull blue skirts of the Chiapas women were replaced by gay affairs of red with yellow and black stripes, blue checked with white and green, and other

Fig. 370—Concepción, Guatemala. Indian Market.

such combinations. Many of these stuffs, seen by themselves, were hideously loud, but on the women, and toned down by wear, faded, and slightly dirty, they were charming.

Coming into Jacaltenango, we sighted a strange pair coming down the road, so strange that we called to each other with delight. There came two Indians apparently dressed as Uncle Sam. As they came nearer, however, it was seen that they more resembled Barbary Pirates. They wore bell-bottomed, sailor trousers, striped red and white (fig. 371). Over wide-collared shirts with purple stripes and a red plaid effect on the collar, they wore black, short coats, rather like midshipman's jackets. Over the sailor trousers they had a curious affair, the waist-band of wool trousers, buttoning in front

with a number of big, white buttons, but with legs that only hung down the back, flapping idly, or were caught up and buttoned to the waist behind. Their heads were bound with red and yellow handkerchiefs, topped with straw hats of rather modern form, made of golden yellow straw. The whole effect was stupendous. These men were from Todos Santos, where later we saw the women in blue or scarlet skirts, their blouses checked with crimson lines, blue shawls about their shoulders, hair done with ribbons, and capped with the same hats, always at a jaunty angle. These are but a sample of the colour that one sees, riding along the Guatemala trails.

At Jacaltenango we made a word-list of the local dialect, Jacalteca (Appendix IV). In the course of it we asked the Indian what

Fig. 371—Todos Santos, Guatemala. Some Indians.

he called *"el cargador del año,"* "the year-bearer," acting on a hint given by a friend in Comitan. The man's astonishment at our knowledge of the phrase, an exact translation of theirs, was enormous. We then obtained the following information:

The church is in charge of twenty men called *rezadores* in Spanish, and in Jacalteca *tcimañ*. They have a special costume of black with a red sash. These men are really priests of the old cult, guarding their knowledge very secretly, and selecting new members as needed, according to methods of choice not known to the laity. Their chief function is the care of the calendar, a day-count being kept with red seeds. In March, April, or May, as the case may be,

they announce the year-bearer, the day of the new year, and the prophecies for the year. At that time a great fiesta is held. Nobody knows just how they select the day, save that it comes in the months mentioned, shifting each year. At the time of the selection they go to a secret cave, where only the older and more completely initiated *tcimañ* may enter, the younger ones fasting and praying outside. There the chief of them reads the prophecy from a pool of blood (said to be in reality bat-droppings, which are deep red).

This indication of a survival of old worship is most interesting, and, falling in as it does with what Sapper has reported (1925), suggests a very rich field for future research.*

Fig. 372—Jacaltenango, Guatemala. The Church, the Cross, and the Ceiba Tree.

There are other interesting minor customs which we noted. Each village has a ceiba tree in its plaza, under which deliberations are held, reminiscent of the old Maya belief that man was descended from such a tree.† Before the churches stand enormous crosses which are worshipped just at dawn (fig. 372). The tree from which the next one will be cut, after the one in use has rotted, is selected long beforehand. It is worshipped where it grows, with much the same formalities as the cross by the church. At dawn in Jacaltenango, while wisps of mist still floated about the plaza, we saw the people, led by a *tcimañ*, praying before the cross and the church door.

*Mr. La Farge will continue the study of the Jacaltenango Indians during 1927.
†Nuñez de la Vega, 1702.

They had candles and little bowls of incense which they placed in all four directions in turn. This same praying with incense to the four directions was seen at Concepcion.

The Guatemala Indians are more carefully controlled, and far more obedient to orders than those of Chiapas; but they give the impression of being more friendly and more self-respecting. Their greetings along the road were cheerful. They would exchange jokes with us and ask us questions in a very pleasant way. What with this, and their costumes, and the sublime country in which they lived, our brief passage among them was almost the most enjoyable of the whole trip.

The trails are well built in Guatemala, and the country is at peace; there is much trading, and one constantly meets mule teams or rows of Indians carrying cargoes. From Jacaltenango we climbed along the mountain side, the valleys grew narrower, the slopes more steep. To right and left of us lay cornfields. Every available foot of soil had been planted, even hillsides so precipitous that a man standing at one row of corn cultivates the third row above him, at his shoulder level. Our animals had a hard time climbing, and therefore we engaged Indian carriers to take some of our equipment. They would swing our heavy boxes on their backs in the early morning and trot off to the next village. There we would find them, sitting calmly on the boxes, smoking cigars. A fresh relay would be ready, and so on from place to place.

We have often spoken of this necessity of supplementing our animals with native carriers through the mountain country. From this it must not be thought that our animals were poor specimens, or ill-cared for. The mountain country is meant for native mules; we were using ponies which had been raised in the hot, level, low country of Tabasco, a scratch lot gathered together on short notice at Macuspana. We allowed for losing at least one on the road, yet, saving the big grey which was traded for Blom's little mule, Borrachito, they all came through. We should like to give them all honorable mention, for they were a game lot. Even more than to them, credit must go to Tata, who single-handed cared for two white men and seven animals over all that journey. He never excused himself from work, never rested at night till his animals were cared for, never missed a chance to wash them down, cared for them as though they were the *"niños,"* "children," that he called them, and never once in all that time swore at them or struck one in anger—truly a remarkable record. He himself was a Lowland Indian, and had his troubles with the cold, strange country. He had expected, originally, always to have some sort of local assistant, yet he never failed us, and never ceased being cheerful. We owe it to him that

we still continued to ride on mounts that stepped forward briskly over the stiff climbs and sudden descents of the Jacaltenango trail.

In the small Indian town of Concepción we were greeted by a reception committee, headed by the Alcalde. Five Indians hammered at a marimba, the national instrument of Southern Mexico and Guatemala, in front of the Town Hall. This instrument is made of wooden slats of different length, which are struck with sticks tipped with balls of native rubber. Seeing it, one hardly suspects that it can make attractive music, and so one is pleasantly surprised when a line of Indians let loose on the keys. The slats are carefully tuned, the music has rather the quality of rushing water,

Fig. 373—The Tulane Outfit on the Trail, Department of Huehuetenango, Guatemala.

or wind in trees, and it is a real pleasure to hear the music-loving natives play their soft and appealing tunes.

Up and down we rode again, now climbing to the top of passes, now descending to the bottom of gorges. Toward the afternoon we entered a long valley, at the end of which we could see the town of Todos Santos. It is difficult to describe the beauty of this mountain country, the succession of surprising views up through narrow ravines, or out from the passes over series of narrow valleys.

In Todos Santos we arrived late in the afternoon, and were given quarters in the parish house, a stone building next to the church. It

was getting cold, and down the valley from its upper end swept great white clouds. After dark we were served a good meal, and then turned to our hammocks. By that time it was very cold, so we went to bed with all our clothes on, plus heavy Indian sweaters and blankets. One would think that this would have kept us warm, but by two o'clock it was so bitterly cold that we went outside the house to look for some firewood. The only fuel we could find was the boards in the walls of a small, rotten, straw-roofed lean-to by our house, so we pulled some tufts of straw out of the roof, some boards out of the wall, and soon had a brisk blaze on the stone floor of our room. After the heat of the fire had taken effect and we drank a cup of coffee, we again went to bed and slept soundly until morning.

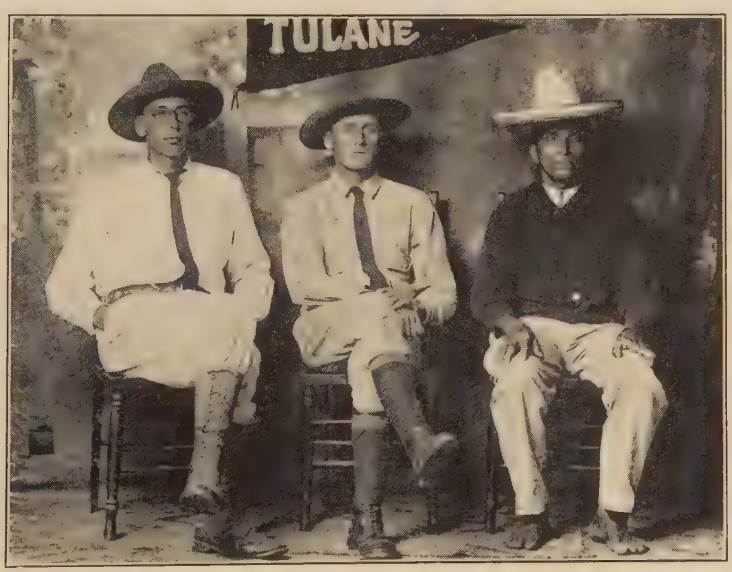


FIG. 374—Oliver La Farge, Frans Blom, and "Tata" Lazaro Hernandez.

We were now on the last day of our ride. Night would see us in Huehuetenango where civilization, with automobile roads, telegraphs, and all its other difficulties, began.

Bright and early we were on the trail. Tata felt very cold, and came to the conclusion that, as heaven is yet higher, it must be icy cold up there, and he would prefer a warmer place.

The cool morning air quickened the trot of our animals. We climbed up through a beautiful valley lined with huge pine trees, then came out into a country of low trees and bushes (fig. 373), finally to enter a bleak basin, only grown with grass.

A last climb for the Paso Vientoso, the Windy Pass. We rode through a small enclosed valley where huge rocks and boulders lay

strewn around. Here and there grew solitary century plants. Ahead the trail disappeared between two large boulders, standing like pillars of a gate on either side of the trail, and behind them nothing but sky. We approached the gate, rode in between the boulders, and before us the bottom dropped out of the world. One thousand, five hundred meters below (4,500 feet), almost at our feet, lay the town Huehuetenango in the middle of a magnificent valley. Far away rose the opposite side of the valley, and still more distant lay a row of majestic volcanos.

Awed we lingered a while, then started the descent. Our work was completed, over 1,200 miles of trail lay behind us, six months of work through huge forests and steep mountains, and at our feet lay the first city. As we rode down the winding trail I turned to La Farge, and quoted the last passage of the opera "Tiefland," *"Jetzt gehen wir ins Tiefland herunter, da streiten sich die Menschen"*—"Now we go down to the lowlands, where the people quarrel together."

EPILOGUE

In the preceding pages the story of the First Tulane University Expedition to Middle America has been told. The material we gathered is of value to the student and we therefore deemed it expedient to publish with due speed, leaving the detailed study and discussion of many points to a future date.

Few people realize the size and richness of the Maya area. Many scouting expeditions, similar to the Tulane Expeditions, have studied this field, and one large project of excavation is now under way, conducted by the Carnegie Institution of Washington at Chichén Itzá, Yucatan. Ten expeditions could excavate alongside each other in the Maya area at the same time, and various scouting expeditions will still have to be sent out before we have an approximate knowledge of the vastness of its ancient population and its activities.

It is our hope that our report may help to awaken the interest of the public in the history of an ancient American people, as few modern Americans realize the stupendous role the ancient American cultures play in our daily life. Research is bringing this out more clearly every day.

The old saying that charity should begin at home can well be applied to American Archaeology. Vast sums are spent by American Institutions in distant fields, while only a few of them conduct explorations on American soil. If our book should help to draw attention to this fact, we would be gratified.

An undertaking such as the Tulane Expedition could not have succeeded so well had it not been for the extraordinary help and co-operation it received from all sides.

Foremost, thanks should be given to the anonymous benefactor who created the Department of Middle American Research, and who so liberally financed the expedition and the publication of its results.

The Governments of the United States and Mexico, and the Republic of Guatemala should next be thanked for the facilities they gave the exploring party, and for the hospitality and courtesy shown by Government officials, one and all.

Many museums and scientific institutions have helped us and their co-operation has been highly appreciated.

The Cuyamel Fruit Company, the United Fruit Company, and the International Railways of Guatemala furnished free transportation on their lines. The International Oil Company and the "Aguila" Oil Company of Mexico placed much data at our disposal, and we shall never forget the hospitality we received in the camps of these companies.

The number of individuals who helped us along the trail, and whose company we enjoyed, is vast. In the text we have been able to acknowledge our gratitude only to some of them. Those who have not been mentioned, we desire to thank through these lines, and we assure them that we have not forgotten their courtesies.

We wish to thank Professor A. M. Tozzer of Harvard for his criticism of the manuscript, Dr. S. G. Morley of the Carnegie Institution of Washington, for his help in deciphering some of the hieroglyphic inscriptions which we found, Professor J. S. Kendall, of Tulane University, for his guidance and valuable suggestions, and an anonymous friend who rendered invaluable help in preparing our field drawings for publication.

The writers wish to thank Dr. A. B. Dinwiddie, President of Tulane University, for his staunch interest in our work, and last but not least our thanks go to Lazaro Hernandez Guillermo, our guide and friend, whose broad shoulders carried their share of the burdens.

APPENDICES

Appendix I.	Composition and Use of the Linguistic Lists	*By O. LaFarge*
Appendix II.	The Popoluca Language of San Martin Pajapan, Ver.	*By O. LaFarge*
Appendix III.	Comparative Wordlists: Yocotan, Chontal, Tzeltal, Chaneabal, Jacalteca . .	*By O. LaFarge*
Appendix IV.	Yocotan Grammar	*By O. LaFarge*
Appendix V.	Yocotan Texts	*By O. LaFarge*
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Appendix I

COMPOSITION AND USE OF THE LINGUISTIC LISTS

The linguistic questionnaire actually used in the field was compiled from lists supplied by Mr. William E. Gates, and by Dr. Harrington of the Bureau of Ethnology. Our purpose was to make up a selection of words, short enough to be run through with an informant in a few hours, and at the same time so chosen as to give some ethnological information, and a slight idea of the vocabulary and the sentence structure.

Our lists contained some three hundred and thirty words, of which a hundred and twenty-five were marked with asterisks. The shorter group was asked first; it included the pronouns and most important kinship terms, as well as words of ceremonial importance. Then if there was time, the list was gone over again. Our informants almost invariably added words of their own, some of which were later incorporated in the questionnaires. Other words were introduced by us, in response to information received concerning local customs of some interest. Thus, at Jacaltenango, being for the first time in a section in which the old calendar still appeared to be in use, we added the phrase "cargador del año," "year bearer."

In Middle America, special emphasis must naturally be given to words known to have had ceremonial significance in pre-Columbian times, or suggestive of former rites and ceremonies. Kinship terms give an idea of the organization of the family. Questions concerning names for stars and directions showed us that little of the old prehistoric knowledge of astronomy survived, although it was known to many that Venus as an evening and a morning star was the same.

Very seldom was there time to go through our lists completely. Anyone who has worked with primitive informants will know what a slow task it is to obtain the most simple list, no matter how well-meaning and coöperative the native may be. Seemingly obvious questions are often quite misunderstood, and the explanations which seem so simple to the Indian, are misinterpreted in turn by the recorder. No list is dependable unless it has been made from at least two informants separately, checking the answers of one against the other. Otherwise one never knows what one may be getting. Thus, Gomez, the Chaneabal Indian, gave us for "to give" a word meaning "I put on my shirt!"

At the same time great care must be observed in approaching words referring to ancient usages or to magic. Such a word may frighten the informant into actually running away, or may so win his confidence as to bring forth a tide of unsuspected information. One cannot ask these words in the presence of others, particularly of Ladinos, and must use one's own judgment as to whether it is best to throw them in casually, or to give warning of them beforehand.

We hope in time to work out, by experiment and through the advice of other scientists, a list for the use of investigators not primarily engaged upon linguistic studies, which will as efficiently as possible present the most interesting ethnological and linguistic aspects of a particular tribe. There is, we know, a waste number of insignificant words in the present list, and it errs greatly in lacking a list of common utensils and objects of every day use. Once properly arranged, a linguistic questionnaire should supply a traveler who has only a day or so to spend in one place, with the best possible working basis for that time. To this end, we should welcome all suggestions that may be made, and any criticisms of the present list.

The arrangement in these appendices follows the alphabetical order of the Spanish words. The Spanish has been retained, in lieu of a translation into English, because the great bulk of comparative material is listed in that language. It was thought at one time to follow the grouping of the questionnaires, based on association of ideas. But unfortunate experiences in hunting through vocabularies arranged on that system has shown that no two writers' ideas associate themselves in anything like the same order. That system is good for the field, but for reference, the alphabetical order is the only one possible.

Appendix II

THE POPOLUCA LANGUAGE OF SAN MARTIN PAJAPAN, VER.

DISCUSSION OF WORD LIST.

The vocabularies collected at Piedra Labrada and Ocozotepec show some dialectic differences. Some of these may be ascribed to variation in individual pronunciation, and some to the fact that the recorder was more familiar with his alphabet and questionnaire, as well as with the sounds of the language, at Piedra Labrada than at Ocozotepec. The informant at Piedra Labrada, moreover, was unusually intelligent and coöperative. Other variations are due to different understanding by the informant of the questions asked. Phonetically, the Piedra Labrada list is harsher and more guttural, and further removed from Zoque. Duplication of vowels, reminiscent rather of Mixe, is more highly developed there. The two must be regarded as local variants of one dialect; according to the Indians, natives of one village converse with those of any other without difficulty.

Grammatical forms are unfortunately lacking, although a little information may be gleaned from the lists themselves. The Zoque verbal suffix *-pa* or *-ba,* (Mixe *-pots*) given by de la Grasserie* as the mark of the infinitive, occurs here in almost all verbs as *-pu, -pa,* or a variant of these. The prefix *tan-* occurring in many verbs from Ocozotepec may be a pronominal form related to the Zoque demonstrative *etambwe,* which de la Grasserie says is often used for the third person plural. The suffix *-bwe* may well have been dropped, as has been the adjectival *-pwe,* which it possibly represents (*p* becomes *b* before *m* in Zoque).

Certain sound-shifts between Zoque and Popoluca may be noted; the chief difficulty in this respect lies in the inconsistency of their occurrence. Thus, while it may be generally laid down that the *a* in *-pa* becomes *u,* the Zoque form *-pa* occurs in several verbs at Ocozotepec, e. g., *bix'pa* and *tawhix'pu.* Popoluca as a whole is rich in the *k* series of sounds, *k, k!, x,* and two marked glottal stops, ' and ', giving a rather unpleasant clicking character to their speech. Whenever possible, words are made to end in one of these, in contrast to the frequent vowel-endings of Zoque. Even in this, how-

*De la Grasserie, 1898.

ever, considerable personal variation was noted, as though the use, especially, of the glottal stops were a mannerism, to be introduced or omitted at will. When two vowels come together, each one is pronounced distinctly and separately, with or without the stop between them.

There is a tendency to turn Zoque *a* into *u*, except when it occurs at the beginning of a word, or before *n* or *m*. All vowels are changed to *u* more often than to any other, *u* thus becoming by far the most common, with *a*, which leads in Zoque, reduced to second place. *u*, in turn, becomes *o* more often than any other vowel.

Consonants correspond closely with those of Zoque in range. *l* is not found, *r* is rare, *f* is lacking. The initial *v* given by de la Grasserie becomes *w*, but that character may also represent a *w* in the Zoque, as certain words spelt by de la Grasserie with a *v* are given with *w* or *gu* by Lehmann* and Starr.† If so *v* as well as *f* is lacking or extremely rare in both languages. *p* after *n* or *m*, which becomes *b* in Zoque, remains unchanged in Popoluca. The change of *t* before *i* followed by another vowel to *ty* is here represented by *t!* or *tc;* this rule holds good for syllables in which the *ty* is not required in Zoque, e. g., Zoque *tum*, one, becomes *t!yon* and *t!ium*. *p* and *b* in Zoque often become *w* between two vowels.

The alphabet used here is modeled on that of the Bureau of Ethnology,‡ as far as that could be done without the use of special type.

The sounds found may be classified as follows:

Consonants.	Stops			Spirants		Nasals	
	Sonant.	Surd.	Fortis.	Sonant.	Surd.	Sonant.	Surd.
Bilabial	b	p	—	(v)§	—	m	—
Linguo-dental	—	—	—	tc (z)§	—	n	—
Dental	—	—	—	—	c	—	—
Lingual—							
Apical	d	t	t!	j	s	—	—
Dorsal—							
Medial	g	k	k!	H	x	ñ	r
Velar	—	q	—	—	—	—	—
Glottal	—	'	—	‘	—	—	—
Nasal	—	—	—	—	—	n	—

Semi-vowels, w and y. Breath, h.

B and *p* are pronounced as in English.

m is very strongly sounded.

n is sounded a little more strongly and more nasally than in English.

*Lehmann, 1920.
†Starr, 1901.
‡Bulletin 40, 1911, Edited by Frans Boaz.
§Used in the Zoque vocabularies only.

tc is the English *ch* in "chant."
c is the English *sh* in "shoe."
d and *t* as in English. *t!* fortis is strongly exploded.
s as in English.
g and *k* are pronounced as in English. *k!* is strongly exploded.
H is pronounced like the Spanish *g* in "gente."
x is like *ch* in German "ach."
ñ is the first *ng* in English "singing."
r is a very short trill, rather like the North French.
q is a harsh guttural, not sonant, pronounced with a slight aspiration.
n marks a nasalization of the preceding vowel, like the effect of *n* in the French "on."
w is pronounced as in English.
y is very nearly a pure consonant, but retains a faint touch of the *i* sound.
h as in English.
' marks a catch in the throat and stoppage of breath.
‘ marks the same sound, with a subsequent, faint aspiration.
ts has not been listed here as a single sound, for, although at first it appeared so to be, it was occasionally found in words wherein the accent fell on the *t,* the *s* being associated with the succeeding syllable.

The vowels may be represented thus:

Short	ŭ	A	ŏ	—	—	—	ĕ	—
Long	u	—	o	O	ā	a	e	i
Diphthongs	—	—	oi	—	ai	—	—	—
Neutral	—	—	—	—	—	—	e	—

ŭ is pronounced as *oo* in English "good."
u as *oo* in English "boot."
A as *u* in English "hut," but rather more short.
ŏ as *o* in "shot."
o as *oa* in "boat."
oi as *oy* in "boy."
O is English "or," said with the mouth held as for *u.*
ā as *a* in English "father."
a as *a* in Spanish "pan."
ai as *ay* in Spanish "mayor."
ĕ as *e* in English "hen."

e as *ea* in English "great."

ẹ is approximately a very short *u*, it resembles the American pronunciation of the *i* in "tennis."

i as *ee* in "meet."

The lists given for comparison have been reduced as nearly as was possible to the same alphabet. In the case of de la Grasserie's, virtually a reprint of Fray Luis Gonzales' dictionary, written in 1672 with the Spanish alphabet, this could be only roughly done; where there was considerable doubt, the original spelling has been retained. Lehmann's words are cited wherever available, in preference to the others.

Words in the Popoluca column followed by no letter are those found to be identical or nearly the same in both lists.

WORD-LIST, POPOLUCA OF SAN MARTIN PAJAPAN 1925

(O) indicates words from Celso Ramirez, Ocozotepec.
(P) indicates words from Manuel Perez, Piedra Labrada.
1—de la Grasserie; 2—Lehmann; 3—Starr.

SPANISH	POPOLUCA	ZOQUE	MIXE
Abeja	tek^{e}tcin'u (P) tcinb'ue	tsino puen (1)	
adivinar	inyoyepu'' noyoiy'u (O)	tokatsamba (1)	
agrio	tsamkāt'so^{e}n (O)		
agua	niuk' (P) nu' (O)	no (2)	no (1)
aire	tsawux' (P) su ho-i pasawa''(O)	sawa (1)	
alacrán	tsue'ci' (O)		
alto	yokum'' (O)		
amarillo	pOus' (P) tsa'wats (O)	pũza (3)	
andar	uitcipu'' (O)	^{e}i'io (2) vitpa (1)	noke (1)
año	aam't!i' (P)	amo' (2)	
árbol	k'oc (O)	kuy (2)	
arco	bēk'ciin (O)	tepkui (1) tepoikui (1)	
ardilla	kūnkee (O)	tekwi (2)	
ascender (subir)	tañ'noiwu' (O)	kwimba (1)	
atole	ouno^{e}' (O)	nono' (2)	
azul	tsuus (P)		
bajo	na'cui^{n} (O)	nasicoko (1) (bajo de la tierra)	

SPANISH	POPOLUCA	ZOQUE	MIXE
barba	añwici (P)	añwai (1)	atsots (1)
beber	tawhixpu' (O)	uk-pa (2)	
bebida	nuikŏ-i' (O)	ukwi (1)	
blanco	poopo (O) paopu' (P)	popo (2)	
blando	bŏn (P)	ponon pue (1) (blando al tocar)	
boca	h'up (O)	guino (3) annaca (1)	au (1)
brasero	uic-hOm' (P)	hukaitcika (1)	
brazo	ha'nku'' (P) hanko'' (O)	koo (2) hango (3) winkapa (1)	koo (1)
bueno	utsanwu'e (O) tuwe (P)	gwepe (2) tsunoi (1)	tsok (1)
cabello	waix (P) pek (O)	vai (1)	kohnai (1)
cabeza	kobak (O) kowak (P)	kopak (1-2-3)	kobaak (1) kobok (3)
caer	tatsok'pu' (O)	kwekpa tepa, tehpa (1)	
caimán	ucpi' (O)	uspi (2)	
calabaza	paso^{n}' (O)	pason (2)	
calavera	kobak'puk (O)	kotcama (1)	kocook (1)
caliente	bix'pa (O)	pigpa (2)	
camino	tuñ	tuñ (2)	
cangrejo	eci' (O)	usi (?) (1)	
canoa	aha''		
cantar	waan'epuk (P) tawan'apa (O)	vanpa (1)	
carne	mai'	sis (2)	
casa	tek!	tok (2) tek (1)	ohk (1)
cazar	akonwipwu (O)		
ciego	kats'ti	vitem-oko-pue (1)	
cielo	suñ (O) siñ (P)	tzap (1-2)	tsap (1)
ciervo	tcibuk' (O)	muea (1)	
chango (zaraguate)	bum'bu-muts (O)		
cojo	kuc'u (P)		
cola	tots	tutz (1)	
comer	tawhix'pu (O)	vikpa (1)	
comida	wik'^{e}ic (O)	vikengui (1)	
concha	cok'i (P)	saca (1)	
conejo	koye (O)	koya (1) konkoya (3)	

SPANISH	POPOLUCA	ZOQUE	MIXE
corazón	tsokwoi (O)	tcokoi (2)	huik-hothot (1) hwiwikhot (3)
cortar	hehae'pu (P) tanhakpa (O)	hakpa (1)	
cosechar	tsanwe'putpa (O)		
coyote	baho'' (O)		
cuerpo	muk'ta'	nitok (2) mtek (1)	nikc (1)
culebra	tsaiñ	tsan (2)	
curar	tantoikwipu (O)	tzoitsipa (1)	
danta (tapir)	tsok'ii (P)		
débil	dya kamnex' (P)		
dedo	waik'e	koi (1)	
descender (bajar)	tarakpi'tcpu	gwanakpa (1)	
dia	haama' (P) yunpamu'' (O)	hama	
diente	tets (P)	tets (1)	tots (1)
dormir	tamoñpa	eñba (2)	maap (1)
dulce (sugar)	tsampaak (O)	paak (1)	
duro	cicn (P)	vetayo (1)	pak (1)
echar suertes	iwat'a *suertes* (P)		
eclipse	kutaphaama'	hamatuikwi (1)	
encantar	tamhox'ma (O)		
escoba	beltkoe (O)	betkui (2)	
escribir	ta haip'u	haipa (1)	
espadarte	tsañ (O)		
espina	apitc	apit (2)	
espinazo	toen'puk		
estrella	mats'u	matsa (2)	
de la mañana	oitsimatsan (O) huitcmatsu' (P)	tsukwi-matsa (1)	
del Norte	anywaku'' (P)		
Ursa Major	estekuwak' (O) ("que parece como un caite")		
Casseiopia	bekciin ("el arco")		
flecha	kaapi		
flor	moya'e (O)	jojo' (2)	heya (1)
frente	win'pak (P)	gwimbaktza (2)	hwinbok (1)
fresco	hormiñe (O)	homepue (1)	
frijol	tsAk (O)	sOk (2)	
frio	tsāmsuksuk	pak!ak (2)	cuc (1)
fuego	huk!'tuk (P) tamutcipa (O)	Hukuto (2)	
hacer	iknuk pahokni (P)	hukata-tsekpa (1)	

SPANISH	POPOLUCA	ZOQUE	MIXE
fuerte	ka'mnex' (P)	pakwi (1)	
garrapata	panyAk' (O)	banOk (2)	
grande	tsam'muix (O)	meuHa (1)	moh (1)
guaracha (caite)	{kuwak! (O) {qeĕk' (P)	kOak (2)	
guerra	nekpatahuk'-tesukwe (O)	duksi-akwi (1)	
hablar	{huipu' (P) {tañmatepu' (O)	{otoñba (2) {zamzamaagkwi (3)	nikapc (1)
hacer	tañwat'o (O)	tzikpa (1)	
hermoso	tsa^{n}'max (O)		
hierro	{tuñkwe (O) {ti'nku' (P)	tonk!ui (2)	
hombre	{po'tci (O) {byu'ci (P)	hui (2)	iădj'ux (3)
hueso	bak (O)	pahk (1)	pac(1)
iguana	{baat!i' (P) {batcii^{n} (O)	{tOtsOn (2) {natokwi (1)	
jícara	tcump (P) (rattle)	tsima' (2)	
lengua	tots	tots (2)	{yen (1) {ia'an (3)
ligero	hikspA'' (P)	henba (1)	
luna	poi'ya'	poya (2)	poo (3)
luz	hok'ti'	sengwi (1)	
llano	kO'pu' (P)	{heen (2) {eeñ (1)	
lluvia	{tux (P) {tsamputoi'putcoh kutux' (O)	{namatu vetzpa (2) {tuhtuhakwi (1) {tug (3)	ioAts (3)
mañana (tomorrow)	hoyAmo' (O)	hoime (1)	opom (1)
mano	ku	koo (3)	{kuua'cp (3) {koo (1)
mar	la'ma (P) (Spanish)		
mediodia	astoikowŭpām (P)	pañwe-hama (2)	
mes	tum poi'ye (P)	poya (2)	
mojado llegar uno m—	{moxne' (O) {tamoxneh (O)	muvapwa (1)	
mono (spider-monkey)	{utsu'ek (O) {Otsux' (P)	tsawi (1)	
mucho	hai'ya' (O)	yaaca (1)	mai (1)
muerte	tsuts (O)	{√ka (2) {kakwi (1)	kapa (1) (morrir)
mujer	yomo	{teyomo (2) {yoma (1)	toosdju'' (3)
mi mujer	{anyom (P) {mitcom (O)*		

*Probably "thy wife," cf., Zoque, *as* = my, *mis* = thy. De la Grasserie, op. cit., p. 12.

SPANISH	POPOLUCA	ZOQUE	MIXE
murciélago	toici^{n}	{nakaHon (2) {tasi (1)	
nada	dya'tci	hanetia (1)	
nariz	{kiinyi (P) {kinye (O)	kwino' (2)	hop (1-3) (cf., boca)
niño	{tsu'ci (O) {tse'yuci (P)	{javapweunetsiti (1) {tsasi-akwi (1) (niñez)	
— un poco mas grande	haitcu	haiya (chico) (1)	
noche	tsuwu'	tśuu, dsubi (2)	
norte	{anwic'wŭm (P)	tahsava (2)	
viento de n.	{wica'wA'		
ofrenda	ecawu'' (P)	venti (1)	
ojo	{ic'kuwi (P) {ic'koj (O)	k!uitom (2)	{uin (3) {huin (1)
olote	manyomox' (O)	Hubal (2)	
oreja	tāts'ik	tatsek (2)	{tatsek (1) {tadsk (3)
pájaro	ho^{n}	Hon (2)	
pared	tuk!nta'na (O)	{hea' (2) {notze (1)	
pequeño	cotcuu'' (O)		
perro	tcim'p^{e}	tuvuik, nogu (2)	
pesado	tsak'cni' (P)		
pescado	{teqeupwe' (O) {te'upu'' (P)	kokwO, tsipaks (2)	
petate	pata' (O)	pata' (2)	
pie	{bo'Ac (P) {poix (O)	{nenkwe (2) {nenāk (3) {koi (1)	{teik (1) {dhĕk (3)
piedra	tsa'	tsa (2)	
piel	nak!'ŭ (O)	naka (1)	ak (1)
pierna	{we'tspu' (P) {we'tcpoi (O)	kwinkwi (2)	pui (3-1)
pito	{sos'ku' (P) {kiupc (O)		
plata	t!om'i' (P)	tumin (2)	
poco	{wec'a (P) {ucen (O)	usañ (1)	
poniente (rumbo)	anhamtigi'umu'(P)		
viento del p.	{yomsa'wA' (P)* {anyom'psawa (O)	tepansava (1)	
pulgar	kok'e (O)	kaañwe (1)	kookoa (1)
quemar	{naowu'' (P) {tanno''w^{e} (O)	poñba (?) (1)	

*Translated by Manuel Perez, "wind to the sea." *yom* = woman, *anyom* = my woman (see Mujer), *sawa* = wind. The *p* in *anyom'psawa* is euphonic.

SPANISH	POPOLUCA	ZOQUE	MIXE
ratón	tsuk! (O)	tsuk (2)	
red	atare (O)	makwi (1)	
relámpago	ke' 'nipu' (P)	nemba (1)	he'dzuk (3)
río	nu' (P) nĕ' (O)	napak (1)	
rojo	tsawats' (P) tsetsawuts'	putzapwe (1) zapas (3)	
saliente (rumbo) viento del.	anhamekii'mu' (P) nuis'awa' (O)		
sangre	nu'upin (O)	no'pin (2)	noo-ipiny' (1)
sapo	năk'	kwi-ka-kwi (1)	
semilla (de mais)	ipak'' (O)	puh, temba (1)	
sentarse	miñimikoipu (O)	pokspa (1)	
sierra	kOtsuk (O)	kotsok (2)	
sol	haa'mā (P) haa'mu' (O)	hama' (2)	cruu (3) ceih (1)
sur, viento del s.	entsapsaw'mu' (P) tsapsaw'a*	humasava (1)	
tambór	kah'a (Spanish)	tsuekwi (2)	
techo	nek'ci	tekoate (1)	
tierra	nas	nas (2)	nac (1)
tigre	kañ	tsikwinkan (1-2)	
tortilla	anyi (O)	ane-tukwe (1)	
tortuga	tiok!'i	tukwi (2)	
trueno	maxhu'iwe (P)	añHoyu (2)	
uña	kA'tsus	kotcus (ka-tsuo) (2)	coik (1)
verde	tsuus'	tutsupwe (1) tsūs (3)	
(que no está maduro)	tsŏkuk' (P)		
vida	ta bibo (O) (Spanish)	itkwi (1)	
viejo	peka, atsa^{n} (O)	peka-puk (2)	
vivo	tsūts (O)†	itpa (vivir) (1-2)	
verano	tsapsawa (O) (South Wind)	anxsen (2)	
1.	t!yon (O) t!ium (P)	tum (2) tāmo (3)	dhuk (3) tzok (1)
2.	wuste' (O) wist^{e}'e (P)	metsa (2) metsen' (3)	mătsk (3) metzk (1)
3.	to'kute (O) to'kutt^{e}e (P)	tukoi (2) tukān (3)	teguk (3) tukok (1)
4.	maktaste' (O) mak!tust^{e}e (P)	martātsān (3)	makdharsk (3) maktakck (1)

*Cf., verano, below. The directions north and south appear to take the names from the winds.
†Compare "muerte." This must have been a misunderstanding.

SPANISH	POPOLUCA	ZOQUE	MIXE
5.	moste′ (O) mustt^{e}′e (P)	mosān (3) mosai (1)	mugŭrk (3) mokock (1)
6.	tox′tute (O) dox′tukt^{e}e (P)	tāgtān (3)	tuduk (3)
7.	wis′tukt^{e}e (P)	kuyān (3) kuyai (?) (1)	kŭrtuk (3)

"lo más en español"

tzontle (400) mOnyi (P)

Appendix III

COMPARATIVE WORD-LISTS

YOCOTAN, CHONTAL, TZELTAL, CHANEABAL, JACALTECA

The Yocotan dialect spoken at the villages of San Fernando and San Carlos, and neighbouring rancherias, near Macuspana in Tabasco, proves on comparison to be merely a variant of Chontal of the Chontalpa proper. The name Yocotan is retained because it is their own name for the dialect, and offers a substitute, if applied to the whole language, for the confusing Chontal, which is also applied to an entirely distinct, non-Mayance dialect of the Pacific Coast. Both Berendt* and Thomas and Swanton* have objected to this confusion.

Comparison with Tzeltal does not bear out the assertion, quoted in Thomas and Swanton, of Berendt,* and of Brinton, who had seen Berendt's unpublished material, that Chontal is only a form of Tzeltal. While undoubted similarities exist between the two dialects, enough to cause them to be classed in the same larger division of the Mayance stock,† the two do not belong together in the sense in which Tzeltal and Zotzil, or Tzeltal and Chaneabal are joined. Yocotan shows a greater number of lexical similarities to Maya proper, and in their resemblances to and variations from Maya the two languages do not agree.

Structurally, the Yocotan dialects are marked off from all the others of this group by their verb construction (see Appendix IV). The most notable point of this is that in Yocotan the possessive pronoun is ordinarily prefixed to the verb, while with the others a verbal-nominal pronoun is suffixed.

The graded variations and similarities from Yocotan all the way to Jacalteca cause one to wonder whether it is correct to take Maya as the type language for the stock, a position which at present seems to be based on historical priority rather than on linguistic grounds. Proper study both of sound-shifts and, especially, morphology, may possibly place in a new light the languages—Chol, Chorti, Tzeltal, Chaneabal—of Indians occupying the Old Empire terrain, partially surrounding the Lacandon country. It would, for instance,

*Thomas and Swanton, 1911, p. 63; Berendt, 1876, p. 9.
†Stoll, 1884, quoted by Tozzer, 1921; Gates, 1920. Sapper groups Chol, Chorti and Chontal.

be of great interest could it be ascertained whether Tzeltal really is the parent tongue of Zotzil, or whether Zotzil, with its marked vocalic individuality, has not corrupted Tzeltal from an original form more closely allied to the lowland languages.

The alphabet used here is modeled on that of Dr. Tozzer,* with a few changes and some additions. It would, perhaps, be possible to enlarge the range of *k* sounds yet further, but the result would be only to make the present records needlessly difficult of comparison with the older lists.

Phonetics. The languages recorded here closely resemble Maya itself in their phonetic system, although a slightly wider range of sounds, especially in the vowels, is found. This may in part be due to uncertainties of pronunciation; certain sounds occur differently in the same word spoken by different men, e. g., *ts'* and *tc'* in Tzeltal, final ' and *k* in Yocotan Chontal. If enough Indians could be questioned, a normal form could undoubtedly be derived from many of these alternates. The presence of the *k* fortis (*k'*), velar *k* (*q*), and the palatalized *g* (*x*), with the frequent stop ('), gives a wider range of *k* and *g* sounds than in Maya.† These, with the fortis forms of *t* and *p*, and the dental surds *ts* and *tc*, make the languages distinctly harsh and unpleasant to the ear. In addition, the Tzeltal and Chaneabal have an ugly, whining tone in ordinary conversation, very much increased when emphasis is desired. Yocotan has an unusual range of nasals.

Consonants. The system of consonants includes one velar, three palatals, alveolars, and a double set of dentals, both surd and fortis, a dorsal, nasal, and labials. It is difficult to distinguish between *b*, *p*, and *w*, although they are probably not interchangeable.‡ In Jacalteca the *p* at first appeared to be a *w*, but was found to be actually distinct; the sound is almost impossible to imitate.

Mention should be made of the added letter *r*, already suggested by Dr. Tozzer, who says:§

"I have been much perplexed by what I have long thought to be an *r* sound, possibly a sonant of the spirant. No mention of this sound is made in any of the early grammars and its presence is denied by the Mayas themselves. This sound I seem to have heard in several words written by Maya scholars with a double vowel . . . I have come to the conclusion to omit this sound from the list."

*Tozzer, 1921.
†Cf. Tozzer, op. cit., p. 17.
‡Tozzer, op. cit., p. 18, and Gates, 1920, p. 612.
§Ibid, page 18.

This *r* I have heard and recorded in the same word in different lists, particularly among the Tzeltal; e. g., *kere* (boy). It is rare, occasionally confused with *l*, but quite forcible when present. It has a short, hard trill, not unlike the Japanese, made with the forward part of the tongue against the roof of the palate.

	Sonant	Surd	Fortis	Spirant	Nasal	Lateral	Trill
Velar	—	q	—	—	—	—	—
Palatal	—	k	k‘	H	—	—	—
Alveolar	—	t	t‘	s	n	l	—
Dorsal	g	—	—	x	ñ	—	r
Nasal	—	—	—	—	n	—	—
Dental	—	ts tc	ts‘ tc‘	j c	—	—	—
Labial	b	p	p‘	v	m	—	—
Glottal	’	—	—	—	—	—	—

Breath, *h*. Semi-vowels, *w* and *y*.

q, the velar *k*, is formed between the back of the tongue and the soft palate. Palatal *k* is as in English. The fortis, *k‘*, is made as the *k*, followed by a strong explosion of breath. The various fortis sounds may be similarly described in relation to their respective surds.

H is an intensified *h* sound, resembling the Mexican pronunciation of *x* in “Mexico,” or *g* in “gente.”

The dorsal *x* resembles *ch* in German “ach,” but with less aspiration.

g is rather faint, as in Spanish “agua.”

ñ is the *ng* in English “ring.”

tc is the *ch* in English “child.”

c is the *sh* in English “shoot.”

The lateral *l* is accompanied by a slight breathing, giving it a thick sound.

j is pronounced as in French “jamais.”

Vowels. On comparing the vowel sounds listed here with those of other writers, it seems possible that I have made too fine distinctions. However, the new vowels were found to occur with great regularity, and in several cases I was corrected by my informants for changing them to the nearest approximate standard form, as, in pronouncing Yocotan *kE-* as *kŭ*, or the sound I have represented by *O* as *o*. Unmarked vowels have their Spanish sounds, *a* as in “pan,” *e* as in “me” (not as in “metate”), *i* as in “bonita,” *o* as in “lodo,” but *u* is pronounced as *oo* in English “good.” In addition there is a long *a* (*ā*) as in English “father,” short *e* (*ĕ*) as in Eng-

lish "met," short *i* (*ĭ*) as in English "mix," long *u* (*ū*) as *oo* in English "boot," and short *u* (*ŭ*) as in English "hut." *E* represents a sound between *ŭ* and English *er* in "water." *O* is a sound like English "or" said while holding the mouth for *u*. Diphthongs are *ai*, *oi* and *au*.

Double vowels are always to be pronounced separately, the second having a slightly shorter quantity than the first.

Accent is indicated by ′ in those words in which the stress does not fall on the last syllable.

Informants. The Chontal List was taken down by Mr. William Gates from two pure-blooded Indians of Tecoluta, Tabasco. It was made at Comalcalco. Mr. Gates' spelling has been revised to accord with the other lists, as far as possible.

Two Yocotan lists were made, the first, from José Hernandez, a young Indian of San Fernando, Tabasco, at Macuspana. The second was given, together with the ethnographic information, by Lázaro Hernandez Guillermo, a man of forty or forty-five, also of San Fernando; he had a little Ladino blood on his mother's side. This man, although illiterate, was remarkably intelligent, and was by all odds the best informant that we had in the course of the trip. The list was made at leisure on board the steamer, and he was by that time thoroughly at home with us, and acquainted with our methods and wishes. He showed some, limited, ability to analyze his own grammatical forms.

The first Tzeltal list was given by Sebastiano Guzman, a Bachajon shaman, at El Encanto in Chiapas. It was supervised by Don Arturo Tovilla, who was thoroughly conversant with the language. The second was given, also at El Encanto, by Fidencio Morales, a Ladino house-boy from Ocosingo, who was not satisfactory. The third was taken down from Don Ciriaco Aguilar at Bachajon. Señor Aguilar had been assisting in Ethnological work for over two weeks, and spoke Tzeltal fluently. He was assisted by a volunteer committee of Indians and Ladinos.

The Chaneabal list was compiled at El Puente, near Comitan, from an Indian estimated at thirty-five years of age, called Casimiro Gomez. He was moderately satisfactory.

Two Jacalteca lists were made. The first, at Jacaltenango in Guatemala, was given by Santiago Hernandez, a middle-aged Indian of doubtful purity, with occasional help from other Indians. He was literate, fairly intelligent, and enthusiastically coöperative. The second was hastily taken down at Concepción. It was begun by Alonzo Rafael Alvebal, pure-blood, about thirty years old, who

did not like it and ran away. His place was taken by a younger man, Nicholas Cardon Niqol (the third names appear to be nicknames), but too much time had been lost to accomplish a great deal.

In the printed lists, preference has been given to the first-named informant in each dialect, although when the variation is considerable, both versions are set down.

SPANISH	TZELTAL	YOCOTAN	CHONTAL
Abeja	{tcanal-tcap {tcap-tcul-tat-tik	{yūm -tcap {mu-yum olokte	tcupim
abuela	{tcutcux {tcutcun-el	{kE-mim {pan'ocip	ka-mam
abuelo	tat-mam-al (father-old-the)	kE-mop	ka-mam
agrio	bax	amuh-ba'*	pa
agua	ha'	ha'	ha
aguacero	tulan-ha-al (strong water)	no-ha (big water)	
alacrán	tsek	sina'	sina'
aliento			ik
alma	lap	pican	
alto	toyol	diski	iski
amarillo	k'an	kun	k'an
amo		yum	
andar	be-el	{cuma'a {ya-kE-te†	te camba
animal	tcam-ba'lam	Eluk'i	tcitam
año	{hun hab-il {hab sin-il	{hun hap (future) {hun habi (past)	
aqui	liil	nida[n]	
araña	ām	t'oi	ah-toi‡
árbol	te	te	hun tsit-te
arcilla	tcav-ek lum (beeswax-earth)		
arco	{timal-te {yalab	wun-te	
cuerda del arco	ahci'al		
ardilla	tcutc	tcutc	ictcutc
arroyo	ukum	sañ-ha'	
asiento		tcumlip	tcunlip
áspero		ketsen	
atole		mats	mats
aya		nant'i	

*amuh, amo-, or amos-, appearing in various adjectives, means *very*.
†In many verbs the informants gave the first person singular, present form. This may be detected by the pronominal kE. See Appendix III.
‡ah = the definite article.

SPANISH	TZELTAL	YOCOTAN	CHONTAL
baile			ahk'out
barba	kisim	kE-tsuktik	tsutsti
balsa	poi		
banda		ku'tcinuk	
barca		no-hukup (big canoe)	
bastante	bisel	kĕĕn	
blanco	tsak	tsuk	suk
blando		la'am / pukum	laam
bobo		tsitsuk	
boca	kĕ	kE-ti'	ati
bonito		pitsi'	
mujer			goodo ke pokem novicik
bosque	mukul hamal (big woods)		
brasero		pulvĕnip	nitci kak
brazo	kap	kE-kup	kab
brujo	poci'	atsak'	ah tsataya (sacerdote indio)
	iluxhom		
bueno	lek	uts	uts
está b-	lek-ai (good-there is)	uts-an (good-there is)	
buho	koOts	buhup	ah-hu
caballo	tsemen	tsimin	
cabello		kE-tsuk	tsuk
cabeza	hol	kE-pam	ka-pam
caer			ta yelo
calabaza	tcum	tcum	tcum
calavera	sbak-el-hol-al	pama-tcim'i / k'an	a-tcime
caliente	kiicin	tiko'b	tiku
cama	waix-yiv-el	nutc	tsen
camino	be	bii	bi
camisa		buk	
campo	huta-kin / akiltik	ham	*campu*
cangrejo	nĕp	aiy'uc	yue
caña	qwahale	oi	oh
caoba		atsutso	tsutsub
carne	bak	uye'e / bekta	vee
casa	na'	otOt	otot
casas		otOte	

SPANISH	TZELTAL	YOCOTAN	CHONTAL
cayuco	*cayuca*	kūkūp	hukub
cazar	muts-umihel	kola-tute'he (let us go hunting)	ya-ka-ce-te-lo-toHa (now I go hunting)
ceniza	tan	tsitañ	tsitan
cerca	hoŏpol	hEtsŭk	natsa
cerro	wits	wits	
ciego	tupen-tsit	'ahtcOk'	{tcok-uhul atcuk
cielo	tc'utcan	*cielo*	*cielo*
ciervo		tcimai	tcimai
cojo			{tcunuyok petcOk
cola		ne	ne
colgar		kE-tcoi-kE-tce (I-hang-I-do)	ka-tcu-ka-tce
collar		yentac	
comer		ko-yie	koatekucka
concha	puix	{petak tOt	
conejo	t'ul	a'-tūl	ah-tul
corazón	kōtan	kEyo-pican	{ka-halin pusika
correr	axnimal	ya-kE-tce'-tuañkre	
coser	espanyĕl	tcuwi'	
cuerpo	wink-ilel (man-entire)	kE-*cuerpo*	ka-*cuerpo*
culebra	tcan	tcañ	tcan
cuñada	ba!	kE-mo'	
cuñado	bal	kE-n^{e}an	
curar			ta tsakalka
danta	tseměn	te-el tsimin (woods beast)	
dar	aweyel		benet
débil	mankyip	mats-an-umuk (not-has-force)	pue-tcem
dedo		kE-nikūp	nikab
todos los d-	lalatak	kE-petc'kūp	
d- del pie		kE-niOk	
día	k'akal	k'in	
diablo		kwo'tak	manap
diente	ke	ke	ke
molares		kE-tcaam	muela
dios	tcun-tat-tik *dios* (our-father-of-us-all)	kEn-yum-la *dios* (our-master-of-us-all)	u-yum-kab

SPANISH	TZELTAL	YOCOTAN	CHONTAL
dormir	waixy-el	te-weye	ta-vaye
dulce	tcab	tsa	tcab
duro		mo Etsuts	tsuts
echar suertes			u yakti ik
que sabe e-	labil		
eclipse	makisit k'akal	mukutce kuwa-kin	aitobni kin / muku kuckan kin
elote	axhan	tcOk-icim	tcok-na
enfermo	tcamel (sickness) / aix tcamel (he has sickness)	amo-nkoho'lun / amon-kohu'lun	koHo
encantar	puku	ankotcuwen upican (force his soul)	tsataya
encanto		jyaan	ah tsataya
e- adentro de la laguna		ta-manap (cf. *diablo*)	
escoba		misip	misip
escopeta		tsomba'	
escribir	tsibahel	kE-tsivan-hom-tsip	te-tsib
espalda		kopaat	tsumpat
espina	tcic	tcic	tcic
espinazo	tciic-pat / mŏtco-bakel	tsompat	ubuke tsampat
esposo		k-itŏk	
esposa		k-itŏk	
esqueleto	tcicil-bak / bak-el-etik		upete u-bak'e
estrella	ĕk'	ik	*lucero*
de mañana	tsĕk	ah-no-ik* (the-big-star)	
vespertina		ah-no-ik*	
pleiades (?)		tcookŏk (la que brilla)	
Ursa Major	cana-ek		
familia	bisil te-kal / te-kal-atak	kE *familia* / nats'ŭn tok'up (nosotros todos)	
feo		matc-uts	poeyik
fiesta	k'in		
f- del santo (May 13, Bachajon)	kan-k'in		
na	t'imal-te / tu-te	wun-te	
	nitcim	unitc	nic-te
nte		kE-pūl	ka-tihut / pul

*"They say it is the same star." (i. e., Venus).

SPANISH	TZELTAL	YOCOTAN	CHONTAL
frijol	tcenek buul	bu'um bu'u	bū
frio	sik	sis	tsis
fruta	sit	tsahE	
fuego	k'ak	k'ak'	k'ak'
hacer f-	wakEnuk k'ak pas k'ak'	tcen-k'ak'	ka-tse-ve-k'ak'
fuente		huta	tcan
fuerte	tulan	amo-k'en-umuk'	pok'om
fuerza		ūmuk'	
gallina		piyuk	
ganado	gwakac (cow, Spanish)	pam-beket (head-horned)	
gato	mis	mis	
gato montes	t'el tcox wac		
grande	mukul	nok, noh, lokŏnok	noH
grano	tcic	hun-cim	
guaracha	tep tcahan	putcyok	
g- de cascara	canak		
hablar	k'op	k'aan tcen'-tan	te-t'an
hacer	pas-el	kE-tcen	
hermana mayor	wic gwic	kE-tcitc	ka-tcitc
h- menor	kitsin	kE-kits'in	ka-tcitc
hermano mayor	bañk-il	kE-sukun	ka-sakun
h- menor	kitsin	kE-kits'in wits'in	k'itsin
hierro	*hierro*	pal'ip	
hija	atcic	kE-yŏk-istcO'k	
hijo	nitcan	kE-yŏk-haxlO'k	
hilo	*hilo*	pui'	
hombre	winik vinik	winik	vinik
hueso	bak-el	bak	bak
h- del tobillo		OkutkOk	
huipil		kamic	
huso	pětět	pětět	
iglesia		tcuuk	tcu *iglesia*
iguana	tOlŏk	hū'	huh
incienso	pōm	pOm	pom
jarrete		tcu-tcĭkin	

SPANISH	TZELTAL	YOCOTAN	CHONTAL
jefe	yaxwhal	{anoha {kE-xhwes	{noh-van-vinik {noci-vinik
j- del pueblo		k-anoha-la tuwa-k'a (our-chief-of-us-all of-the-village)	
jícara	{tsima', kax {tuts	tup, buc	tup
j- (rattle)	{tcitcil {tsutsu	tcikic	
labrar (madera, etc.)	waluyel	pŭl	
lagarto	aihyin	Ehin	ahin
laguna	mukul-ha'	nap	*laguna*
lanza	fisig'a (?)	stcik-te	*lanza*
l- para pescados		tceki'biye	
lejos	lum-namal	muhnaat	pwenat
lengua	kak'	kE-ak	ka-ak
la l-, (idoma)	ts'eltal	yoko'tan	
leon	{tcambalam {tsax-hal-tcox (red-the-tiger)	tcimai bāl'um	bal'am
lia		sum	Hote
ligero	ma-waal (not-heavy)	sceĕp	pwe sop
liso		ts'eyyum	
luna	uH(halalme-tik)	uhi	u
llano		nun-ham	
llever	itceltai-il		
lluvias (tiempo de)	{bayel-ka-haal {bayel-yac-stal-haal	{amo-ken-ha' {ha'-leltin	non-ha
madera	{te {te' eti	te'	te
madre	nan	na'	ka-na
maiz	icim	icim	icim
maléolo		kE-petcOk	
malo	ma-lĕk-uk	matc-uts	{kanic {mats-uts
hombre m-	{tcopal {malek-owotan (bad-his-heart)		
mañana (morning)	sakubal	isapan	ika sapan
mano	dyal-k'ap	kE-k'up	ka-nikab
mediodia	holi-kak'al	kEncin-k'in	
mente		kahalin	
mes	hun uh	hunpe-uhi*	

*Used for counting time of childbirth.

SPANISH	TZELTAL	YOCOTAN	CHONTAL
miel	{axa-tcap, usum {tcap-tcul-tatik	te'ele tcap	tcap
mijilote		abalai'	
mono	mac	pūm	ah-pum
monte	hamal	bwulena	bwenala
mojado		atch	
muchacha	atcic	yok'telum	
muchacho	{kere {kerem	{yokhaxlOhk {ah-lohk	
mucho	bayel	amo-k'en	k'en
muerte	{taltcamel {tca-winik	ah-tcimi	ah-tcami
mujer	ants	icik	icik
murcielago	tsOts	tsūts	sūts
muslo		kE-wOk	
muy		{amos {icta	
nadar		nu'ci	
naranja		arancus (Spanish)	
n- agrio		pahala	
nariz	ni	kE-ni'	ni'
negro	ik'	ik	ik
nieta		k'-umam	ka-tcok-mama
nieto		kE-bit-umam (pl.)	
niño pequeño	tut-alat	tcik'stcOk (que todavia son de pecho)	
noche	ak'abal	{ehak'Ek {ak'ŭp	aitabni
norte	{kin haal {yaxtal-hale' (por aca viene el agua)	te-*norte*	
viento del n-		ben'dawal	
nuera		kE-hrip	
nuevo	{yatcil {tomut	{tcOk* {sihip†	tsihib
ofrenda	matamniil (gifts)	{cux'hiwa {atcumpom (first fruits)	hisi utci hunpe si
ojo	sit	{kE-pu'ut {hut	hut
olorosa		mahatsin'na	
olla	ŏcom		
oreja	tcĭkin	kE-tcikin	tcikin

*For animals and human beings. †For inanimate objects.

SPANISH	TZELTAL	YOCOTAN	CHONTAL
padre	tat	kE-pop	ka-pop
pájaro	mut	mut	mut
panacho		tcim-pam	
pared	pak‘	wOk′teĕ	
pecho		kE-tokpa’	pantis
pequeño	tut	tcOtcOk	tcitcok
persona	winik	untu-tcugha / untu-winik	vinik
pava		nakmu′lup	
pavo		ahtsŏk	ahtso
perro	tsit	wi′tcuk	vitcu
pesado	ahl	amoh-al	al
pescado	tcai	byiye′to-ha’	maluh
pescuezo			lukub
p- en frente		kE-lukup	
p- por atras		kE-picte	
petate	pOp	pOp	pop
pie	kOk‘	Ok	ok
piedra	ton	tun	tc‘a
piel		putci′le	patcihi
pierna		kOk / kE-wOk	ka-vok
pito	amai	Emwi	
plata	tak‘in	takin	
pluma	kŭkum	makup / vitc	maku
platano		haas	haas
poco	luunteb	tsintap	tsita
poniente	yaxubak-kaka-baitik	ko-pome-kin (where-sets-sun)	muku-pome-kin / baca-u-pome-kin
posole	mats	puhk‘a	buka
primo	cavankil	kE-bitis′ā’	ka-pom
pulgar	sme-kap		noh-nikab
pulsera		tcutcui-kup	
quemar	k‘utcik k‘akel	pulu’	tu-pule
quemo		kE-pule	
raton		tsuk	ictsuk
red	tcokhax	tcip	
redondo		pete	
relámpago	nixkel, tsantsegwal / kaka-tcauuk	ah-lemi-tcawŭk	tcavuk
rio	ha	*rio*	
rodilla		kE-tenek	

SPANISH	TZELTAL	YOCOTAN	CHONTAL
rojo	tsak	{tcuk tcik	tcuk
saliente	{yax-loke-kakal hwantec-lok-tcul-kakal (lok = risen tcul = holy)	{biete-kin ko-tuts-kin (where-rises-sun)	{muku-pase-kin baka-pase-kin
sangre	tciitc	tcitce'	tciitc
sapo	pokOk	mutc	ah-mutc
seco	takin	ti'k'in	tikin
el s-, tiempo	{takin-huc kepel-kinal	amo-tik'in	noh-kin
sembrar	tsunel	pEkE	tu pŭkŭb
semilla	tsumbul	uběk	
sierras	*sierras*	te-wits*	
sol	k'ak-al	kin	k'in
sombrero		hopo	hop'o
soplar		hutstañ	
subir		kE-topsen	
suegra	meelnial	kE-noh-nak	
suegro	nial	k-itcan	k-itcan
sueño	wayel		
sur	{nitaa-lan (here-below) hwantec-otc-kakal	*sur*	
tabacco		kuts	
tambor	kayo'	kowĕn	hoven
techo	hol-na'	hai-te'	te-can
techo de palma	can	can	
tejer	{waluyel holel	hŭ'lvwehe	
tejedor	holel	hElŭ	
tia	mehun	kE-tcitc (elder sister)	
tio	baxhun	kE-sukun (elder brother)	
tierra	lum	kaap	kab
tigre	tcox	ba'lum	ba'lam
tinaja	qip	Ots	pū
tirar (piedra)		la-kE-hulehi-tun	yak-ce-ka-Huleh
(escopeta)		kE-tcen-sombak	
(lanza)		kE-tcik-teen	
tortilla	gwax	{dlaañ gua' (all forms of cornbread)	va

*Really a directional term South. "Towards the Hills."

SPANISH	TZELTAL	YOCOTAN	CHONTAL
tortuga	ahk‘	ak‘	ak‘
trueño	{stackwaiyel {aicwaiyel, t‘om	{kweye {tcawūk*	tcavok*
tumbar (un arbol)		kE-yEsen	
uña (de hombre o de animal)		itcek	itchŭk
verde	yac	yuc	yuc
vida	kucūl	anto-pican	halin†
viejo	{kaalic {mamal	{tcupin‡ {su’§	nohcib
viento	ik‘	ik	ta ik‘
volar	wixhlel	kE-wil’e	
yacer			ya ka-cacutce
yerno	bal	kE-ni’E^{n}	
zaraguate	bats	aHwats	
1	hun	hun-pe¶	un-to
2	tcĕ-eb¶	tca’-pe	tca-to
3	oc-eb	uc’-pe	uc-to
4	tcan-eb	tcum’-pe	tcan-to
5	ho-eb	{hun’-ka (one hand) {no’pe	ho-to
6	hwak-eb	*seis*, etc., in Spanish	
7	huk-eb		
8	wacak-eb		
9	balun-eb		
10	lahun-eb		
11	bulutc-eb		
12	lastcai-yeb		
13	uc-lahun-eb		
14	tcan-lahun-eb		
15	ho-lahun-eb		
16	hwak-lahun-eb		
17	huk-lahun-eb		
18	wacak-lahun-eb		
19	balun-lahun-eb		
20	tab, tax.		
21	hun-ka-vinik		
30	lahun-is-tca-vinik		
40	tca-vinik		
50	ho-lahun-eb‖		
80	tcane-vinik		
100	hol-vinik		
400	bak		

*Cf. “Relampago.”
†Cf. mente. ‡Used for animate beings. §Used for inanimate objects.
¶The suffix = “times.”
‖Obviously an error, cf. 15.

SPANISH	CHANEABAL	JACALTECA
abeja	tcaq*	nopal-k'ap k'ap*
abuela	mee'cep	mi-icnam (mother-old)
abuelo	amee'cep	mam-icnam (father-old)
adivinar	wan-k'in-tanel	
agua	ha'	ha'
aguacero	*aguacero*	nap
alacrán	tsek	ic-k'ap*
amarillo	k'an	k'an
amo		*vide* "jefe."
andar	behikotik	peluox
animal		nohox
año	ha'bil	habil
dia del a-	habilin	babel-tsaiik ak'habil
cargador del a-		ixum habil
araña	am	ce-k'ap*
árbol	te'	hun-te
arco	pu''l-te*	tsik-te† hlit
armadillo	iboi	
barba	yisim	cil-ku-ti'* (hair-my-mouth) cil-inti-an* (hair-mouth-my)
blanco	t'on	sax
boca	sti'	ku-ti' nti'-an
brazo	sk'a'ap	ku-k'ap hnkab'an
brujo	axnanuE	añ'lom beetsom, naxual (Spanish Nagual?)
rezador		tciman
bueno	lek	k'ul be
esta b-	lek-aix (good-there-is)	k'ul'aktu
buho	tuHkul	coots
cabeza	tsolom	ku-wi'
calabaza		k'um
calavera	sbak-el-tsolom	sbax-el ku-wik bax-in sat-an
cama	tc'at	tcat
camino	beh	be'
cerro	wits	wits

*Cf. "Miel."
†Cf. "flecha."
‡ku- and -an were explained as the first person possessive.

SPANISH	CHANEABAL	JACALTECA
ceiba		te-nup‘
cielo	sukinal	sat‘-kan
cola	sme'	ne’
conejo	tcitc‘	cik
corazón	shuhoël	han’mal / wanmahan
coyote		ŏx
cuerpo		ku-imanil
culebra	tcan	laba’
curar (esta c-)	wanaxnanel	tcan’li-nax (nax = winaq = *man*)
danta (tapir)	tseměn	tsimin
dar		tcuaan
débil		pik‘in, matc-ip (not-strong)
dedo	sniwoyal-kap	yicimal-kak‘ap
día	k‘akum	hun tsaiik
diente	iyeb	hxe / weh-an
echar suertes	wacieg’wakac	Hilucko *suertes*
eclipse de sol		skai-tsaiik
e- de luna	tcak-icau (está acabando la luna)	tc‘ikam-komi ahau (está comiendo la luna)
encantar (esta e-)	wantsebo	
esquinas, los quatro	tcikin-sukinal	
escribir	tsi’banel	tsiplox
espina	kiic	tcic
espinazo	sbatik	bax-il-tel-k‘-itcin / ist‘el-witcin-an
esposa	sbiil	uical / ucalal
estrella	kanal	tcume’l
e- de mañana	niwañ-kanal (big-star)	saxbes / taxbes
e- vespertina	niwan-kanal	taxbes
urso major (?)	tsek (scorpion)	
familia	naka-kerman	
fiesta	k‘in	k‘in
flecha	pu’l-te	tsik-te / hlit
flor	nitcim	haqbal
frijól	tcenek	hupal
fruta		lopeal
fuego	k‘āk	kaHa’ / k‘ak
hacer f-	kulti-kāk	haku’a’

SPANISH	CHANEABAL	JACALTECA
fuerte		ip‘
grande	ni’wa^{n}	nimexal
guaracha	canap	cañap
hablar	kumonin’kotic (vamos hablar)	tsoteli
hermana mayor	snu^{n}	wanap
hermana menor	suats	co’-tsuqhan’winin / nitcan-wanap-an
hermano mayor	sbamkil	babel winax / uctax-an
hermano menor	yiitsin	skap winax / nitcan wictax-an
hierro	*hierro*	kexpuak
hija	yal	ku-tsin
hijo	yuntik’il	k‘aol
hombre	winik	winaq
hueso	sbakel	bax, bax-il
huípil		kole’h
iguana	*iguana*	intam
incienso	pOm	pom
jarrete		ome
jefe		nakhahau
jícara	tsima’	tsimax, tcux-tsimal
j- matraca		tsoxtsox
labrar (madera, etc.)		tseum
laguna	*laguna*	p‘am
lengua	yak	hak‘
la l- (idioma)	toHalawal (lengua derecha)	mam’a
leon	tcox	balam
luna	icau’	cahau / ahau
luz (del sol)	kak*	yox ku-mam tsaiik†
llano	hOp	tcañ
llover (va)	hiixta’	
lluvias (tiempo de)		napil
madera	te’	te’
madre	snan	mi’
maiz	icim	icim
malo	*malo*	tcoq / ya’ai
mañana (morning)	sak‘bel	tsab tsaxbalil
m- (tomorrow)	hetcel	
pasado m-	tcabel	

*Cf. “fuego.” †Cf. “sol.”

SPANISH	CHANEABAL	JACALTECA
mano	syal-kaap	ku-k'ap
masacuate		kĕxsop
mediodia	kulan-k'aku^{n}	tcuman
mes	icau	huni-cahau
metal		tcentcen (?)
miel	tcaq	k'ap
mono	matcin	mac
mente		telax
muchacha	akic	ic
muchacho	kermano	tco'
mucho		tcial
muerto	tcam'el	k'amum
ya murio	tcamta	
mujer	icuk	ic
murciélago	sots	sots
muy		kai (?)
nariz	sni'	ku-tcam intcam-an
navaja		hospal
negro	kik	k'ex
niño pequeño	tcinuntik	nictek-hunin
nieto		tahol inkahol-an
noche	ākwal	a'balil
nopo	use	usmix
nuero	yali'	
nuevo	akatc	ak'
ofrenda	toqwistik nitcim (nitcim = flower)	
ojo	sat'	sat
ombre		huitcik
oreja	tcikin	tcikin
padre	stat	mam
pájaro	tcuyaltcan	tcik
panacho		tsintax
pared	p'akap	p'iitsap
pedernal	ton-k'ak (stone-fire)	iclapum cit
pelear	tsleweple	howel
pequeño	tci^{n}	tcanie
pavo	*pavo*	ahtsoq
perro	tsisE	mietci'
pescado	tcaix	kai
petate	pOp	pop
pie	yok	Hox
piedra	t'on	tcentcen

SPANISH	CHANEABAL	JACALTECA
pierna	yetc''mal	
pito	axmaiH	su'
plata	ta'k'in	t'umin
plantar		hatconal
pluma	kuku'm	cik
poco		nientcan
poniente	otci-k'ākuⁿ	{paictoi ku-mam tsaiik {paicito tsaiil
posole	pitci'	pitei
quemar	biktik	tsai'*
ratón	co'o'	tc'ou
relámpago	lixbi	tcaitesqnak'u
río	ni'wañ-ha'(big water)	niman-ha' (big-water)
rojo	tcak	k'ax
saliente	telhani-k'ākuⁿ	{paic-tit ku-mam tsaiik {paic-tcul tsaiik
sangre	stcikel	tcik
sapo	wŏk	{ponom {pahtsa
seco (tiempo del)	takin-sakinal	haxan
sembrar	ts'unti	tsonowawal
sierra	wits	himx-wits
sirve, no		mats-wa'yi
sol	k'akuⁿ	tsaiik
suegra	snial	mi' (mother)
suegro	snial	mam (father)
sueño	waiyel	
tabacco	maix	sik'
tambor	pumpuwahap	{tinam {tinap
techo	solum-naits	{swii-na' {istcuk-na'
tejer	khosxala	tcemlŏx
tia	hwits	{nohin-mi' {wanap-an
tio	hnu	{yuctakin-mam {wictaxan
tierra	luum	tcotc
tigre	*tigre*	balam
tinája	tc'up	tcok'
tortilla	waH	wax
tortuga	*tortuga*	āk'
trueño	awon-tcauwuk (it is thundering)	tsetnak'u

*Probably related to tsaiik, sun.

SPANISH	CHANEABAL	JACALTECA
uña	yetc	isk'ax
verde	yaac	yax
viejo	pokeca'	cil
viento	ik'	ka'e
vivo		k'aula anmo*
yerno	snial	ni'
zaraguate	bats'	mac
1	hun-e'	hun-e'
2	tcab-e'	k'a-p
3	oc-e'	oc-ep
4	tcan-e'	kan-ep
5	ho-e'	ho-ep
6	wak-e'	waxh-ep
7	huk-e'	huxh-ep
8	wacak-e'	wacakh-ep
9	balun-e'	balun-ep
10	lahun-e'	lahun-ep
11	lahtcow-e'	hun-lan-ep
12	hulutc-e'	k'ap-lan-ep
13	oc-lahun-e'	ox-lan-ep
14	tcan-lahun-e'	kan-lan-ep
15	ho-lahun-e'	ho-lan-ep
16	wak-lahun-e'	waq-lan-ep
17	huk-lahun-e'	huq-lan-ep
18	wacak-lahun-e'	wacaq-lan-ep
19	ba-lahun-e'	balun-lan-ep
20	hun-tab-e'	hun-k'al
21		hun-es-ka-winax
30		lahun-ska-winax
40	tca-wink-e'	ka-winax
41		hun-yoc-k'al
50		lahun-yoc-k'al
60	oc-wink-e'	oc-k'al
61		hun-es-kan-winax
80	tcan-wink-e'	kan-winax
81		hun-es-ho-kal
100	laH-wink-e' (?)	ho-k'al
400	hun-can-e'	kan-ep *ciento*

*Spanish, anima.

SPANISH	TZELTAL	JACALTECA
que estas haciendo?	bin-ka-pas bin-u-kala-pas	tsetca'u
cuando viene?	ban-oi-extal-at*	bain-tcotchuli
estoy parado	hoon† tekel-on	linan-in-an
está parado	estuke-tekel	
estoy sentado	hutsul-on	pisan-in-an
soy vivo	kucul-on	ain koh-an
soy muerto	estcam-on	tcin-kam-an
yo	hoon	hainan
tu	haat hacat	hatc
el	estukel	ha-nax
ella	estukel	ha-ic
nosotros	hoo-tik-on	hai-un-tik
Vds.	tcebal-ik	hec-tik
ellos	estukel-ik hai-ik	hep-nax
ellas	estukel-ik	hep-ic
mio	kuŭn	ku- -an (?)
tuyo	aguŭn	
suyo	yuŭn	
nuestro	kunn-tik hun- -tik -tik	ku- -tik (?)
suyo	yuŭn-ik	
este	haini	
ese	ham'to	
aquel (lejos)	hame lumai antabai	
estoy cantando	lakalta-k'aiyo‡	tcimit-nian
voy a cantar	exbakaix-k'aiyo	
quiero cantar		tcimit-ni-ninox
ya canté	lakaic-k'aiyo	sac-kimit-ni
que es el camino por?	ban-ix-vac be	bai-t'et-be
donde está?	ban-oya ban-aix	bai-taiya
de donde viene?	ban-tala ban-ic-talat	bai-tuapeto
para donde va?	ban-ix-vat ban-ic	bai-tcectoiyi

*Second person. †May be omitted.
‡The person is uncertain.

Appendix IV

YOCOTAN GRAMMAR

Enough phrases and grammatical forms were collected in the Yocotan branch of the Chontal dialect to afford a very sketchy and incomplete idea of its construction. Internal evidence of the word-list indicates that Chontal of the Chontalpa does not materially differ. The discussion which follows is not intended as a grammar *per se,* so much as to make available grammatical material for comparison with other Mayance languages. Many important forms are missing here, and the unexplained exceptions are not few. As Canonigo Sanchez said of Zotzil, "the exceptions are many and puzzling, *sed usus docebit.*"

The material is presented as given by the informants. A few pronominal forms of the variants spoken at the village of San Carlos were obtained. They show marked differences from the San Fernando speech, although the two are considered by the Indians themselves to be one dialect. It is to be regretted that we did not obtain a San Carlos informant.

PHONETICS

Vowels. The vowels of affixed elements often change to accord with that of the stem,

ya-waa-lam, ya-tcumu-lum,* but *koho'-lum.*

Occasionally it is the stem vowel that changes, if it is not accented,

tcOk-tcŏmo, from *tcOk-tcĭmo.*

The terminal vowel of a prefix may be elided before a vowel,

t-a'w-Ok, uncontracted form *te-a'w-Ok.*

In the case of a suffix, or when the first of two vowels is essential to the meaning, *w* is introduced, (see also Pronouns),

k-o-wa-yi'e, from *kE-o-a-yi'e* (I wish to eat, *a* is probably Spanish *á*).

o may become *u* before *k, noh,* big, *nuk-ham.*

Consonants. *n* becomes *m* before *b,*

kE-tcĕm-bida, from *kE-tcĕn*-bida.

*When no accent is marked, it falls on the last syllable.

h becomes *k* before semi-vowels and *h*, but *w* before vowels,
nuk-winik, nuk-ham, from *noh-winik, noh-ham.*
now-ik, from *noh-ik.*
s before *k* may be elided, or become *ñ,*
amo-kʻen, much, from *amos* "very" and *kʻen* "enough."
amoñ-koho', very sick, *amos* plus *koho "sick."*

THE NOUN

The basis of the whole grammar is the noun, for from it adjectives and verbs are freely formed, and the verb-stem is essentially a verbal noun.

Number. The plural is shown by the suffixes *-e* and *-ŭp,*
otOt-e, houses, *winik-up,* men.

The latter suffix resembles the Maya *-ob;* the former may be Maya *-el* with the *l* lost, cf. *te-el* below. When adjectives are affixed, the plural termination remains with the stem,
biits-e-tcOk, children little.

Gender. There is no gender.

Case. There are no true case-forms, case is expressed by affixes corresponding to English prepositions, which do not affect the stem.

Collective Nouns. A collective sense is given to nouns by the termination *-el,*
te, tree; *te-el,* woods.
The same form is found in Maya, and in Tzeltal it has a much wider application.

Composition. Words are very freely made by compounding others, and in this case it is difficult to say whether we have another word, or the same one with an adjective. (q. v.)

THE PRONOUN

Four forms of the pronoun have been listed, although it is a question whether the verbal pronoun is used chiefly for emphasis, as in certain expressions it occurs with the verb, or implies in itself the verbal idea. (See The Verb).
noʻon kE-tcĕn-otOt, myself I built (a) house.
yah-non, past time I am; I was.

	SAN FERNANDO VILLAGE	SAN CARLOS VILLAGE
I (am)	*no'on*	*nats'un*
thou (art)	*ane*	*ande*
he* (is)	*une*	*une* (?)
one (is) (indefinite)	*atcug'a*	*atcug'a*
we (are)	*no'on-up*	
we (are) (inclusive)	*nats'un-tok-up*	*kande-tok'-up*
you (are)	*ane'-la*	*ande'-la*
they (are)	*une'-hun*	*une'-hun*

THE POSSESSIVE PRONOUN. This serves as the common manner of expressing possession, and also for the verb, in which use, however, it is still strictly a possessive, and does not carry in itself the verbal idea.

k-otOt, my house.

kE-kai, my singing; I sing.

It agrees in number with the possessor for whom it stands, and not with the thing possessed,

k-otOt-la, our house, or our houses.

It does not occur alone, but is prefixed directly to the stem.

my	*kE-*	*kE-sukūn,* my elder brother *k-otOt,* my house
thy	*a-*	*a-sukūn, a'w-otOt*
his her	*wi-*	*wi-sukūn, wiy-otOt*
his her (Verbal form)	*yoo-*	(See, The Verb)
our (inclusive)	*kE- -la*	*kE-sukūn-la, k-otOt-la*
yours	*tuta* *tuta -la*	*tuta-sukūn, tutaw-otOt* *tuta-sukūn-la*
their	*tu, u*	*tu-sukūn, tuy-otOt*

Attention should be called to the exception in the use of *w* between vowels formed by the third person, which uses *y,*

wiy-otOt, his house, *a'w-otOt,* thy house,

and to the change of stem in the verbal form to *y, yoo-te,* he comes; *y-o,* he wants.

This exactly corresponds to the change in Maya discussed by Dr. Tozzer,* who says "These vowels, when they occur here, may have had a phonetic origin, but a syntactic relation is shown at the present time by the fact that *w* changes to *y* in the third person." Emphasis is given to this by the special *y* form of this person alone for use with verbs.

*There are no distinctions of gender. Cf. the Noun.
†Tozzer, 1921, p. 41.

With the second person a glottal catch, ', is introduced before the *w;* it is possible that this catch would be present in the separated form, but would be inaudible before consonants. It does not, however, occur when the pronoun is prefixed to words beginning in *y,* and in this case the slight vocalic tinge of the *y* causes the *a-* to become a diphthong,

ai-yok'otan, thy language.

Such a shift would not take place if the catch were present.

Demonstrative Pronoun. These have only one form for each, and there is no plural. *lanka-an,* (that, far off) is derived from *lanka,* (over there) and *-an* (is).

This *hin'i.*

That *hin'i-bwe.*

That (far off) *lanka-an.*

Interrogative Pronoun. What, when, and where are expressed by affixes of time, place, or object to the interrogative particle *ka-.*

What? *ka-kwa.*

When? *ka-k'in.*

Where? *ka-da.*

Thus they are composed of elements lacking any pronominal force.

Number. No dual was found. The nominal and possessive pronouns both have plural forms.

The inclusive form of the first person plural is common to many Mayance languages. It is formed by the suffix *-la,*

k-otOt, our house (but not yours).

k-otOt-la, our house (belonging to everyone present).

The non-inclusive form is not distinguished from the singular, which, indeed, seems to have lost its own form and taken over that of the plural, which is distinguished by *k-* in the Maya nominal pronoun. In this connection it will be noticed also that the stem of the first person plural of the San Fernando nominal pronoun, is that of the San Carlos singular.

The *-up* ending of the plural forms (see the Noun, above) is probably related to the Maya *-ob,* confined to the third person.

Inclusive *-la,* with a purely plural sense, occurs in second person plural forms, and occasionally in nouns, analogous to the double use of Tzeltal *-tik.*

THE VERB

In its stem form, the verb is really a noun expressing the idea of the action performed or the state of being; it might be best translated by the English present participle or the Latin gerund. Our infinitive is roughly paralleled by the addition of the prefix *te-*,

te-k'ai, to sing.

This process is analogous to our own.

The stem may be, and often is, a true noun, used as a verb simply by adding appropriate affixes and auxiliaries,

tsomba', a gun; *te-somba'*, to shoot; *kE-tcĕn-tsomba'*, I shoot. Compare the colloquial English, "to gun."

Synopsis, First Person Singular

	k'ai (singing)	*tsunsin* (killing)
Present	*kE-k'ai* (my singing) *kE-tcĕn-k'ai* (my action singing)	*kE-tsunsin* (my killing)
Future	*ya-kE-ce'-kE-k'ai* (now my going my singing)	*ya-kE-tsunsi* (now my killing) *ya-kE-tsoni*
Past	*san-kE-tci-k'ai* (past my past action singing)	*hE-kE-tsunsi* (past my killing) *hEn-kE-tsoni*
Past (I just)		*qwatoda kE-tsunsi* (just now my killing)
Past (long ago)		*kE-tsunsi enda* otra dia (my killing long ago)
Imperative (2nd Pers)		*tsunsin* (killing)

Conjugation, Present Tense

	te-cumba (?) (to go)	——— (to want)
I	*kE-cen* (my going)	*k-o* (my wanting)
thou	*a-tcen* (thy going)	*a'w-o* (thy wanting)
he, etc.	*yoo-cen* (his going)	*y-o* (his wanting)
we	*kE-tcen-tok'-up* (our going we all)	*k-o-tok'-up* (our wanting we all)
they		*y-o-etak* (his wanting plural)

Miscellaneous Verbal Phrases

Let us go, *kon'a-la, ko'-la.*

I make (do), *kE-tcĕn* (my making).

I shall make, *ya-kE-ce-kE-tcĕn* (now my going my making).

I am a man, *winik-on* (man I am).

I shall be a man, *winik-on-te-kE* (man I am coming my?).

I am standing, *ya-waa-lam* (now erect *lam* = ?)

I am sitting, *ya-tcumu-lum* (now sitting *lum*).

I am sick, *yoho'-lum* (sick *lum*).

I was standing, *ah-non-waa* (past I am erect).

I was sitting, *ah-non-tcumu* (past I am sitting).

I was on a trip, *yah-non te-viaje* (past I am on [a] trip).

I am living, *ya-kE-tcĕm'*-bida, (now my making life).

I am dying, *kE-tcemo* (my dying).

The stem does not change with number or time, except in the verb *tcĕn-*. It may be conjugated with the incorporated stem *tcĕn* (do), or with the pronoun alone. *tcĕn* is a unit with the pronoun, prefixed to the stem, rather than an infix between pronoun and stem.

kE-tcĕn-k'ai, my action singing; I sing. *kE-k'ai,* my singing; I sing.

In the latter case one must depend on the context to show whether "my singing" or "my song" is intended.

The Pronoun With the Verb. This is the possessive form, and is prefixed, with certain exceptions mentioned below. The inclusive form is used for the first person plural.

Tense. There is no sign for the present tense, except the occasional emphatic *ya,* now.

The future is formed by the auxiliary *cen,* go,

kE-cen-kE-tcĕn, my going my doing; I am going to do.

kE-cen-kE-tcĕn-k'ai, my going my action singing. I am going to sing.

The use of *cen* differs from that of *tcĕn,* for with the former a pronoun is required for the main verb as well as the auxiliary, the stem alone or with *tcĕn* forming one main verb. It is also distinct from other independent auxiliaries such as *k-o,* I want, which may be used with a second pronoun for the stem.

k-o kE-kune, my wanting my learning, I want to learn, or in a manner analogous to English, with a preposition.

k-ow-a kune, my wanting to learn, I want to learn.

ko-la t-ute'he, let us go to hunt, let us go hunting.

ko-la t-a'huts, let us go to fight, let's start a fight.

In the latter two instances "go" is used in its more literal sense, and as such is distinguished from the future auxiliary.

The immediate future is shown by the prefix *ya-* or *ca-,* probably the Spanish *ya.*

ya-kE-ce'-kE-k'ai, now my going my singing, I shall sing now.

One instance is given in the lists of the future indicated only by *ya-,*

ya-kE-tsunsi, now my killing.

There is no way that this can be told out of its context from the emphatic present.

The past is shown by prefixes, *hEn,** *san,* and by a change in the stem of *tcĕn.*

hEn-kE-tsoni, past time my killing; I killed.

san-kE-tci'-k'ai, past time my past action singing, I sang.

hEn-kE-tci'-tsomba', past time my past action shooting, I shot.

The form *san-* was only found with the verb "to sing," but was given by both informants alike.

Recent past and extreme past are shown by modifying words or phrases, which render unnecessary the modifications of the verb,

qwatoda kE-tsunsi, recently I killed.

†*a-kE-tsunsi enda* "otra dia," I killed a long time ago.

Interrogative. Interrogations in the present tense, the only ones listed, show interesting forms. The auxiliary and the possessive pronoun are omitted in the third person, the pronoun being replaced by a suffix *-t* or *-it.*

ka-da-an-it, what place being he? Where is he?

ya-an, his being, he is.

ka-da-tĕ-t, what place coming he? Where does he come from?

yoo-te, his coming, he comes.

*Cf. Maya *winik-h-en,* man was I; I was a man, Tozzer, op. cit., p. 285.

†I do not know the meaning of this prefix. It may be a mistake, representing a breath taken by the informant before answering.

In the second person the pronuon is retained, but the stem vowel, if *e,* is changed to *i, a* and *o* do not change.

kwa-ka-a-tcin, thing what thy doing? What art thou doing?

a-tcĕn, thy doing, thou dost.

ka-k'in-a-ti, what time thy coming? When comest thou?

haipe-a'w-o, how much thy wanting? How much dost thou want?

ka-da-'-an, what place thy being? Where art thou?

The uncontracted form of the last example is *ka-da-a'w-an,* but all of the pronominal element has been elided except the '.

It is a pity that a fuller list of interrogations was not obtained.

The Verb "To Be." A few phrases were recorded containing elements corresponding to uses of the English "to be." The forms shown are confusing and incomplete, little more can be done than to list them. The second and third person of the present and the past form suggest some connection with the Maya root *yan.*

In the first person, present, "I am" may be indicated by suffixing a modified form of the verbal pronoun,

*winik-un,** uncontracted form, *winik-no'on,* man I am.

A different sense is shown by *-lam* or *-lum,* patently modifications of the same element, which the writer has not been able to analyze.

ya-waa-lam, now standing I am.

ya-tcumu-lum, now sitting I am.

koho'-lum, sick I am.

The second person I have constructed from *ka-da-'-an,* discussed above. It follows the usual rule for verbs,

[*a'w*]*-an,* thy being, thou art.

The third person is also regular,

ya-an, y-an, uncontracted form, *yoo-an,* his being, he is, there is, etc.

It is used in the impersonal form with adjectives, etc.,

uts-an, good being, it is good.

matc-an, not being, there is none.

The first elements here evidently are regarded as possessives.

The past tense was recorded only in the first person,

ah-non-waa, was I standing, I was standing.

yah-non te- viaje, was I on (a) voyage, I was on a voyage.

*Cf. Tozzer, ibid.

The *ah-* or *yah-* may be connected with the Maya suffix *-ah** for past time. *non* obviously is a contraction of *no'on,* I.

It is interesting to note that the suffixing of pronouns typical of Maya and the more nearly related Mayance languages is retained here only in the first person present and past of the verb "to be," and possibly in a few forms discussed below.

Exceptional Forms. The incompleteness of this discussion of the Yocotan verb is shown by the number of verb forms in the texts (Appendix IV) which have not proven susceptible to analysis. Most of these have been left untouched, but mention should be made here of one form.

In both texts the word *hulon* occurs, translated as "I came." It is used strictly in the sense "to come to prayer," and shows no connection with the stem *tĕ,* coming. It is identical with the stem *hul,* to throw, and may have originally meant to throw one's self down in prayer. This interpretation is somewhat fortified by the phrase *ya-hul-on t-a'w-Ok,* translated "now came I to thy feet" (Text II). There is no indication of past tense. If the literal, primary sense of "throw" be accepted, *-on* may be taken as the nominal pronoun used in the objective,

hul-on, throwing me, (I) throw myself.

Or it may represent a state of being, *-on* being used in its verbal sense,

hul-on, thrown I am.

Otherwise, if an active meaning be assigned to it, we have a construction not found elsewhere among the verbs recorded in the Yocotan and Chontal lists, but typical of Tzeltal.

THE ADJECTIVE

Adjectives are regularly prefixed to the stem,

yuc-ha', green water.

noh-ka, big village.

In many cases, however, it is impossible to tell what is adjective and what noun, or whether we are dealing with a modified noun or a compound. In such instances, the adjectival element may be shown to be the suffix by the position of another affix.

büts-e-tcOk, literally, young (ones) little, little children.

Both *büts* and *tcOk* may be used alone.

*Tozzer, op. cit., p. 78.

In other forms, the essential nominal element may be revealed by comparison with the word given by different informants,

yum-tcap, master-sweet, and *tcap,* sweet, both mean "bee."

The adjective is not modified for number.

ADVERBS

Position. Adverbs in my list usually precede the verb or adjective modified, but adverbial phrases follow, much as in English.

ic'ta nan'ti, very far.

amoñ' koho', very sick.

qwatoda kE-tsunsin, just now I killed.

kE-tsunsin en'da "otra dia," I killed long ago.

Only a few adverbial particles have been noted, they are prefixed, and do not appear to stand alone.

Negation. This is shown by the particle *matc,* the *-tc* of which is usually omitted before consonants.

ma-k-o, not my wanting, I do not want.

matc-uts, not good, bad.

Sometimes the pronoun is omitted when *matc* is prefixed to a verb.

matc-an (*matc-ya-an*), not (it) is, there is none.

Time. Beside the separate words mentioned above, a few prefixes were noted that modified the tense of the verb. (See The Verb). These always came before the pronoun and auxiliary.

ya-kE-k'ai, now I sing.

hEn-kE-tsoni, past time I kill, I killed.

ARTICLES

The articles in Yocotan are used as in English, but not as freely, and with more force. The indefinite form, *untu* or *untui,* is best translated by the Latin *quisdam.*

untui winik, some man (not specified), a man.

The definite article, *ah,* corresponds to the English emphatic "the," with the meaning of the only one, or the best.

ah now-ik, the big star; i. e., the Morning Star.

PREPOSITIONS AND POSTPOSITIONS

The majority of these, as prefixes with nouns, serve to indicate the oblique cases. They are few, and their meanings are very vague.

Instrumentality is shown by *ko-*, which may be a corruption of the Spanish "con,"

k-utehe ko-tsomba', I hunt with (a) gun.

tuva- expresses a general idea of possession and origin,

kE-sukun tuva-kE-na', my uncle of (or through) my mother, uncle on my mother's side.

It is used to express the purpose of a thing, or use for which it is intended.

reli'ke tuva-tik-k-ūtsii', candles for (*tik?*) my cure (from sickness).

This is not entirely disconnected from its first sense.

The preposition *te-* has the widest use of any. While its primary sense is a general sense of motion towards,

kE-cen te-ha', I go to (the) water,

it serves all the purposes of the English to, with some applications that remind one of the New England "to home" meaning "at home." With a verb stem, or noun serving as a verb, it forms an infinitive,

te-tsomba', to shoot, (cf. colloquial English "to gun").

kola t-ute'he, let us go to hunt.

The second example is analogous to the Spanish usage, *vamos à cazar*, and Spanish *à* is also used in this sense, suffixed to the verb,

ko-wa t-ute'he, I want to hunt.

The form spoken of as similar to New England "to home" has lost the idea of motion towards, and becomes a sort of locative,

yah-non te-viaje, I was on (a) trip.

te-wits, the hill country, towards the hills.

A locative sense is given to the demonstrative and interrogative pronouns by the suffix *-da*,

hin'i, this, *hin'-da*, this here, *hin'-da* ruego, this prayer here, this prayer that I am making.

(Cf. colloquial English, "this here dog").

ka-, interrogation, *ka-da?* what place, where?

The temporal aspect, "when?" is shown by *k'in,* primarily meaning "sun," hence "time," used as a postposition,

ka-k'in-a-ti? what time thy coming? When art thou coming?

The equivalent of the English pronoun "what?" is formed by the suffix *-kwa,*

ka-kwa-a-tci? What thing thy doing? What art thou doing?

Appendix V

YOCOTAN TEXTS

Given by Lazaro Hernandez Guillermo

TEXT I

A Curse: *"pecukum tuskavenen u-pican,"*
To Catch Someone's Soul.

Yocotan:	*pecukum*	*ya*	*kE-pop-la*	*winik-up**
La Farge:		now	our father(s) of us all	men
Hernandez:	va cojer l'alma	ya	los dioses de la tierra	

Yocotan:	*y*	*kE-na''-la*	*nuk-icik' -tok-up*	*da-diva*	*k'in*
La Farge:	and	our mother(s) of us all	big women	here this (?)	day
Hernandez:	y	las madres de la tierra		este dia	de hoy

Yocotan:	*da-diva*	ora	*tuskaven'en*	*u-pican*	*yaan*
La Farge:	here this (?)	hour	(?)	his soul	there is
Hernandez:	esta	ora	Fulano de Tal		tengo

Yocotan:	*kE-butixwhe' la*	*huven' en*	*u-pican*	*hin-kutana*‡
La Farge:	my box	bring	his soul	here
Hernandez:	mi botijuela	que me traiga el alma		aqui por eso

Yocotan:	*hul-on*§	*kE-pop-la*	*kE-tsū*	*mats-an*‖
La Farge:	throw myself	our father(s)	I brought	food there is
Hernandez:	subvini vini	nuestro tata	aqui traje	esta comida

Yocotan:	*ya*	*kE-pop-la*	*winik-up*¶
La Farge:	now	our father(s)	men
Hernandez:	ya	nuestros tatas los hombres grandes	

Yocotan:	*nuk*-tiñoses	*icik*	*y*	*nuk*-tiñoses	*winik'-up*
La Farge:	big dyed	women	and	big dyed	men
Hernandez:	personas con tiña, dueños del encanto				

Yocotan:	*nuk*	San Cristóbal{	*winik-up*	*nuk*
La Farge:	big	San Cristóbal	men	big
Hernandez:	grandes	San Cristóbal	hombres, los dueños de este lugar	

*This should be *nuk-winik-up*. See below.
†The ending *-tok-up* is the inclusive of the first person plural in another form. Probably the prefix *kE-* is considered as modifying this word as well as the previous one.
‡No equivalent was obtained for *kutana*.
§See Appendix IV. The Verb, Exceptional Forms.
‖*mats*, literally *"atole."*
¶Note the various translations of this phrase given by Hernandez.
{ The town, through which we had passed, not the saint. The idea is to call on the *dueños* of as many places as possible.

Yocotan:	San Cristóbal	*icik-up*	*nuk*	Comitan	*winik-up*	*nuk*
La Farge:	San Cristóbal	women	big	Comitan	men	big
Hernandez:	San Cristóbal	mujeres	los hombres grandes de Comitan			

Yocotan:	Comitan	*icik-up*	*nuk*	*wits'-il**	*winik-up*	y	*nuk*
La Farge:	Comitan	women	big	the hills	men	and	big
Hernandez:	las mujeres grandes de Comitan			los cerros	hombres y mujeros		

Yocotan:	*wits-il*	*icik'up*	*nuk*	*E*nortes	*winik'-up*	*nuk*
La Farge:	the hills	women	big	North (wind)	men	big
Hernandez:	grandes de los cerros			del Norte	hombres	grandes

Yocotan:	*E*nortes	*icik'-up*	*nuk*	*swes'tes*	*icik'-up*
La Farge:	North	women	big	southeast wind	women
Hernandez:	del Norte	mujeres	grandes	sureste, un viento	mujeres

Yocotan:	*nuk*	*swes'tes*	*winik'up*	*ya-*	*kE-hok'eete-la*†
La Farge:	big	southeast wind	men	now	we call
Hernandez:	grandes	viento de sureste	hombres	ya	aqui te llamamos

Yocotan:	*ya-a'-te'la*‡	*da*	*nuk*	Encantos	*icik'-up*
La Farge:	now come ye	here	big	Finca Encanto	women
Hernandez:	que vengan	aca	grandes	Finca Encanto	mujeres

Yocotan:	*nuk*	Encantos	*winik-up*	*nuk*	surouestes	encanto-*hup*
La Farge:	big	Encanto	men	big	southwest wind	magician spirits
Hernandez:	grandes	hombres de Encanto		grandes	souroueste, un viento	los encantos

Yocotan:	*nuk bendawal*	encantos	*y-an*	*ta motan*
La Farge:	north wind	magicians	there is	offerings (?)
Hernandez:	viento del norte	los encantos	hay	van a regalar.

Yocotan:	gracias	*y-an*	vino	*y-an*	*mats*
La Farge:	offerings	there is	rum	there is	atole
Hernandez:	ofrendas	hay	aguardiente	hay	posole

Yocotan:	*y-an*	*ictel-ha'*	*y-an*§	*kE-tsū*
La Farge:	there is	sugar cane water	there is	I brought
Hernandez:	hay	balché de caña	hay	reunido

Yocotan:	*mats-an*	*otcen'-la*	*te-no'* -santa mesa
La Farge:	food there is	come ye (to eat?)	to (the) big holy table
Hernandez:	la santa mesa	entran á comer	á la santa mesa.

*This is a definite direction and territory, the *witsil* people are probably the Chol.

†Lit, my calling plural. The stem for "thee" does not appear, although its length makes it probable that the verb stem is composite.

‡Lit, thy coming plural, stem *te*, (come).

§This last part is very uncertain. Hernandez was bothered by the blasphemy, and hurried through.

TEXT II

Prayer in Church to Saint Ignatius

Yocotan:	*ya kE-pop*	*ya-hul-on*	*t-a'w-Ok*		
La Farge:	now my father	now thrown I	at thy feet		
Hernandez:	ya mi tata	vini	a sus pies		
Yocotan:	*kE-kehin'da**	promesa	*no'*	santo	relique
La Farge:	my this here	offering	big	holy	candles
Hernandez:	promesa de		grande	santo	velas
Yocotan:	*tuva-tik†*	*kE-tsii*	*tuv-olyo*	*tsik-e*	
La Farge:	for	my relief	for (?)	relieved (pl.)	
Hernandez:	para	mi alivio	para que estan	aliviados	
Yocotan:	*kE*-familia	*matc-ah-nik*	*tcok'-tcŏmo*		
La Farge:	my family	not the sickness	children die		
Hernandez:	mi familia	que no se mueren	los niños		
Yocotan:	*matc-h-nik*	*matc-otc-ik'ya*			
La Farge:	not (?) sickness	not enter sicknesses (?)			
Hernandez:	que no hay enfermedad, que no entre enfermedad				
Yocotan:	*t-a*^{n}	*otOt*	*an'de*	*a-mOk*	*te-en*
La Farge:	to the	house	thou	thy guarding	(?)
Hernandez:	en la	casa	Vd. mismo	cuida	la casa
Yocotan:	*atatu*	*tcun'-caan*	*astatu*	*tcun*-cielo	
La Farge:	even to	holy palm-roof	(?)	holy sky	
Hernandez:	hasta	la cubija dela casa		arriba	
Yocotan:	*tsehen'em-ik-eya*		*matc-enatse*	*otOt*	
La Farge:	pass to one side sicknesses (?)		not draw near	house	
Hernandez:	que pasa la enfermedad á uno lado		que no se acerca	la casa	
Yocotan:	*anda hulet*	*ya'-ko*-mar	*ka-matc-unum*		
La Farge:	thou throw	now (?) with (?) sea	where not pass		
Hernandez:	Vd. que lo tire	en el mar	adonde no pasa		
Yocotan:	*alpen'a*	Nuestro Padre Señor San Ignacio	*ande*		
La Farge:	(?)		thou		
Hernandez:	la gente		Vd.		
Yocotan:	*pŭnte'wa-lekĕt*	*a'w-iste*	*san-hin-da*		
La Farge:	(?)§	thy carrying	holy this here		
Hernandez:	que se para adelante de la enfermedad	que le lleva	esta		

*Originally, Hernandez gave *promesa* as following this, but later said that it was the translation. Probably the first version was correct, and I have restored it.

†The meaning of *-tik* is not clear.

§This is obviously a compound of several elements. *wa* is the root, "standing."

Yocotan:	*sup'liko*	*hin-da*	ruego	*k-anta-yum-la**
La Farge:	prayer	this here	request	our to master inclusive
Hernandez:	supplica	este	ruego	a mi amo
Yocotan:	Dios.			
La Farge:	God.			
Hernandez:	Dios.			

FREE TRANSLATION OF THE TEXTS.

In the following versions, I have several times preferred Hernandez' rendering, because, while it is philologically inaccurate, it expresses better the deeper meaning of the prayers.

TEXT I

I am going to capture a soul, now gods of the Earth, and our mothers of the Earth, here, today, now, this man's soul. I have my box here, I came here for that, bring me here his soul, fathers. I have brought food [for an offering to you] our fathers the big Men, the great painted Women, and the great painted Men, gods of enchantment. The Great Ones of San Cristóbal, the great Women of San Cristóbal, the great Men of Comitan, the great Women of Comitan, the great Men of the Mountains, the great Women of the Mountains, the great Women of the Southeast Wind, the great Men of the Southeast Wind; now we call ye, come ye here now; the great Women of Encanto, the great Men of Encanto, the great Magician-Spirits of the Southwest Wind, the great Magician-Spirits of the North Wind. Here are offerings, here is rum, here is food, here is posole, here is food that I brought; come ye to the great sacred table.

TEXT II

Now, my father, I am at thy feet with this my offering of tall, sacred candles [to pay for] help for me; that my family may be made well, that the little ones die not of sickness; that there be no sickness, that sickness enter not into the house. Thou thyself care for my house, care for even its roof, even to the holy sky. Let disease pass to one side, and not draw near the house; do thou throw it into the sea, where the people do not go. Our father and lord, San Ignacio, stand thou between us and sickness. Carry thou this sacred prayer, this petition, to God, master of us all.

*The second syllable is not clear, the third, *-ta-*, may be *te-*, "to." The word would then be *k-* (my) *an-* (?) *ta-* (to) *-yum* (master) *la,* (plural inclusive).

Appendix VI

TZELTAL TEXTS

Given by Senor Aureo Cruz, of Toniná

TEXT I

PRAYER OF POOR MAN, WHEN MAKING OFFERINGS IN CHURCH OR IN THE MILPA

(See The Northern Tzeltal, Chap.)

Pas-a	*resib-il*	*yun**	*k-aHwal-tik*	
Do thou	accept (Sp. recibir)	in the name of	our guardian of us	
Dios	*tcul-ba-lum-milal*†	*bin*	*la-ta*‡	y
God (of)	blessed the world	that which	found	and
bin	*ma-va-la-ta.*	*pas-a*	perdon	*yun*
that which	not was found.	do thou	forgive	in the name of
k-aHwal-tik	Dios		*tcul-ba-lum-milal*	*tcitc'*
our guardian of us	God	(of)	blessed the world	blood
bak'-et-al	*ham-al*	*k'-otan-tik*	*ham-al*	*ti'-tik*
of (?) bones the	open	our hearts of us	open	mouths of us
aw-on	*te-lum-al*	*koltai-ya*	*haHwal*	
give me	health of the earth	free it (protect?)	kneeling (?)	
ha-nitcan.				
thy son.				

TEXT II

TZELTAL CONVERSATION

hoon	*lok'-on*	*tax*		*lum-al*	*v-oon*	*ta'*
I	went out I	from	(my)	land the	went I	to
yan	*lum-etik*§	*ta'*	*yil-el*‖	*yan*	*lugarx-etik*	
other	lands	to	see	other	places	
y	*lak-il*‖	*s-na*		*es-etik*		*baiyel*
and	look at	their (?) houses		Old Ones ("los antiguos")		plenty

*This was originally given *sok*, "with," but one of the Indian girls at El Real corrected it to *yun*.
†The stem is *lum*, "earth." No definite translation was found for *-ba-* or *-milal*.
‡The root is *ta*, "come."
§*-etik*, or *-tik*, is the emphatic plural, as well as forming, with the first personal pronoun present or implied, the inclusive plural.
‖*-el* is the generalizing suffix, here it represents the abstract idea of the action, and corresponds to our infinitive.

santo	*ton-etik*		*tsiwab-il**	*laH-lokes*		
holy	stones (carved monuments)		written	it looked		
te†*-bit-il*	*aix*	*te-sit*	y	*paca-hon*		
it saw (?)	there are	the faces	and	enjoyed I (myself)		
ta-lek	*lax*	*mulan*	*aix*	*s-na*	puro	*ton*
well	they	pleased	there are	houses	pure	stone
ta-sba	*wits*	*lax*	*kaltai-tik-on*		*hil-el*	
on top	mound(s)	them	cleared plural we		(we) left (them)	
tsoowŏl	Christianos	*yackoi*	*tai*	*yil-el*	*tuxbil*	
many	Mexicans	came	*to*	see	pretty	
hil	*li*	*ya*	*kikitai*	*li.*		
(it) remained	here	I (?)	left	here.		

tsibai-yel, "to write."
†May be omitted.

Appendix VII

INDEX OF RUINS

Throughout the expedition a large amount of information was gathered on ruins and mounds. It was not possible to visit all these places, but in order to have them on record for the benefit of future explorers, they have been listed in the following pages.

The ruins are listed according to State, and their approximate location is indicated on the section map of each State.

The list only contains new material, or such material as bears on the report of the T. U. X. A more complete index of Maya Ruins will be found in O. G. Ricketson, Jr., and F. Blom's map and index of ruins in the Maya area, Peabody Museum, Harvard University, Cambridge, Mass., 1924-25. (35 copies).

VERACRUZ

Arroyo Grande, Canton Minatitlan, on the Pedregal River. Three mounds.

Canada, La., Canton, Tuxtla, Station on the railroad between El Burro and San Andres Tuxtla. Large mounds close to track. One main pyramid and courts. TUX report, p. 18.

Carmen, Savanna Del., Canton Tuxtla. On the railroad between El Hule and El Burro. Mounds scattered over savanna. Can be seen from train.

Caxapa, Canton Tuxtla. Structures of Aztec type. Mentioned by Bancroft, 1883. Vol. IV., p. 426.

Capoacan Island, Canton Minatitlan. Stone head of Totonac type. Published by Seler, 1925, Vol. V., p. 555.

Cascajal, Canton Minatitlan. Settlement on the Uspanapa River. Pottery seal of Aztec type. TUX report, p. 78.

Catemaco, Canton Tuxtla. Town on lake Catemaco. Mounds in village and to North of same. Several stone idols, one of which comes from Tenaspe Island in lake. TUX report, pp. 21 and 22.

Cerritos, Los, Canton Minatitlan, 24 kilometers from Puerto Mexico on railroad. Mounds in swamp. Pottery.

Coachapa, San Cristobal, Canton Minatitlan. Ruins indicated on ancient map. Clay figurine. TUX, p. 78.

Filesola, Canton Minatitlan. On Uspanapa River. Pottery figures and bowls.

Guasantla, Canton Acayucan. Mounds and Pottery.

Hueyapan, Canton Tuxtla. Colossal stone head. Reproduced by Melgar, C. Seler, and Lehman.

Hule, Escape De, on railroad from Tierra Blanca to Sta. Lucrezia. Group of mounds in clearing North of railroad track.

Ixhuatlan, Canton Minatitlan. Indian Village. Crude stone idols, pottery.

Jaltipan, Canton Minatitlan. On Isthmus Railroad. Several mounds around town and in line between Jaltipan and Cosoleacaque.

Laurel, El. On railway between El Burro and San Andres Tuxtla. A small mound seen from train. Seler found an idol here.

Lirios, Los, Canton Tuxtla. Various stone sculptures, reported by C. Seler, 1922, p. 544.

Madereros. Station on railroad between Veracruz and Tierra Blanca. Mounds seen from train. TUX., p. 15.

Mancuernillas, Canton Minatitlan, on Uspanapa River. Indians report many metates, stone idols, and pottery.

Mata Canela, Canton Tuxtla. Tobacco plantation, three kilometers from La Victoria on Southeastern shore of Catemaco Lake. Mounds dug into by Ed. Seler. Many idols and boxes of stone. C. Seler, Pl. V., No. 4, p. 545. TUX., pp. 23-24.

Misantla. Mounds.

Montepio, Canton Tuxtla, on Gulf Coast. Row of mounds reported by Ricardo Villa and Juan Brisueño, Catemaco.

Natacapa. Tobacco plantation between San Andrés Tuxtla and Catemaco. Large group of mounds from which owners of plantation are said to have extracted much pottery.

Ocotal Grande. Indian settlement on Eastern slope of Santa Marta Volcano. Idol reported.

Pajapan. Canton Tuxtla. San Martín Pajápan Volcano. Large stone idol on edge of crater. TUX., p. 33.

Piedra Labrada, Canton Tuxtla, on Gulf Coast at foot of San Martín Pajápan Volcano. Group of mounds and several stone monuments. TUX., pp. 40-42.

Pueblo Viejo, Canton Minatitlan, on the upper Uspanapa River. Rumors among the Indians of ruined city.

Santecomapa, Canton Tuxtla, on Gulf Coast. Many mounds.

Santiago Volcano, Canton Tuxtla. Mountain considered sacred by the Indians. Ruins on Southern slope. Friedlaender states that idols in San Andrés Tuxtla are from these ruins.

Sayula, Canton Acayucan, near Isthmus Railway. Pottery of Aztec type.

Siguapan, Canton Tuxtla. Tobacco plantation on road between San Andrés Tuxtla and Catemaco. Group of mounds. Several have been opened.

Tabasqueno, Canton Minatitlan. Plantation on the Coachapa River. Several pieces of unbroken pottery found in bed of small stream by manager of plantation, Mr. A. Duncan.

Tatocapan, Canton Tuxtla. Mounds reported by Federico Sandrock in San Andrés Tuxtla.

Tecuanapa, Canton Minatitlan, on the Uspanapa River. Large quantities of pottery found by Blom in 1921.

Tenaspi Island, Canton Tuxtla. Island in Northwestern corner of Catemaco Lake. Idol now in Catemaco Village said to come from here. Large amount of broken pottery. TUX., pp. 22-26.

Teotepec, Canton Tuxtla, at Northwestern corner of Catemaco Lake. Mounds and stone monuments without carving. TUX., p. 26.

Tonala, Canton Minatitlan. See under Tabasco, La Venta Ruins.

Tula, Canton Tuxtla. Ranch between Naranjal and San Andrés. Tuxtla. Mounds and possibly idols.

Tuxtla, San Andres, Canton Tuxtla. Three stone rabbits' heads, one stone frog said to come from ruins on Southern side of the Santiago Volcano. TUX., pp. 18-20.

Victoria, La, Canton Tuxtla, on Southeastern shore of Catemaco Lake. Tobacco plantation. Mound on lakeshore. Pottery found by German planters. TUX., p., 22.

M. TABASCO

Agua Blanca Cave, Mpd. Macuspana, South of Macuspana. Broken pottery.

Bellota Ranch, Mpd. Frontera, 13 kilometers Southwest of Frontera. Many mounds built of baked brick. Visited by Berend, Seler, and Charnay.

Blasillo, Rio, Mpd. Huimanguillo, tributary to the Tonalá River. For ruins see La Venta.

Comalcalco Town, Mpd. Comalcalco. Private collection of antiquities belonging to Mr. Cevallos Saena, who died in 1925. His widow would not allow TUX. to see collection. Collection of Antiquities in school of Alberto Correa.

Comalcalco Ruins, Mpd. Comalcalco. Important group of ruins, built of brick. TUX., pp. 104-130.

Cuscuichapa River, Mpd. Comalcalco. Many mounds reported along banks.

Frontera, Mpd. Frontera. Private collection of antiquities belonging to Engineer Moises Fraire. TUX., pp. 92-100.

Gloria, La, Mpd. Macuspana. Ranch to the West of Medellin Pass, Northeast of Salto de Agua. Between Medellin Pass and Tulija River house foundations and walls seen by C. A. Campbell of International Oil Co.

Jalpa, Mpd. Jalpa. Skull painted blue reported to have been found during excavation for foundations of market place in 1925.

Mecatepec, Mpd. Huimanguillo. A mound called El Cerro Encantado close to Finca La Central is reported by Indians.

Pozo Azul, Mpd. Macuspana. Cave from which former inspector of monuments, Ramon Alvarez, has taken pottery.

Rio Muerto, Mpd. Tenosique, near Tenosique. Three heads carved in limestone were extracted by Inginerio Pinto of the Mexican Forrestry Department. He spoke of ruined buildings.

San Andres, Mpd. Comalcalco. Finca on Rio Tortuguero. Small jade head found.

Santa Cruz, Mpd. Jalpa. Ranch between Jalpa and Chichigalpa. Mounds oriented around Plaza. TUX., p. 136.

San Diego, Cerro, Mpd. Macuspana. Isolated hill on right bank of Tulijá River near where it joins the Macuspana River. Small temple reported on hill.

Saragosa, Mpd. Macuspana. Ranch at Northwestern end of Macuspana Mountain. Mound and a passage.

Tortuguero, Mpd. Macuspana. Mounds, ruined buildings, and monuments. Blom, 1924. TUX., pp. 146-150-154.

Venta, La, Mpd. Huimanguillo, near the Blasillo River. Mounds and stone monuments. TUX., pp. 81-96.

M. CHIAPAS

AGUA CLARA, Dept. Palenque. Mounds on point where Tulijá and Agua Clara Rivers meets. TUX., p. 218.

AGUA ESCONDIDA, Dept. Chilon, Southeast of Finca Tecojá. Temple and mounds. Sapper, 1897, p. 355. TUX., pp. 315-319.

ANTONIO, SAN, Dept. Chilon, Ocosingo Valley. Mound with large burial chamber. TUX., pp. 322-323.

AUSTRALIA. See Tecojá.

BUENA VISTA, Dept. Tuxtla, Jicipilas Valley. Deep cave where many skulls have been found.

CAMINO BLANCO, Dept. Comitán. Mounds.

CANPOMTIK, Dept. Chilon, Ocosingo Valley Pyramid. TUX., pp. 255-256.

CHAC, RANCH, Dept. Comitán. A circular stone with faces carved on its surface is said to have been extracted from cave.

CHACALCHIB, Dept. Chilon, Ocosingo Valley. Pyramid. TUX., pp. 252-253.

CHAMUL, Dept. Chilon, Ocosingo Valley. Many mounds along right bank of Jataté River. Urn covered with two stones, layers of ashes.

CHAPAYAL, Dept. Comitán. Cave with idols, one of which is said to hold an ear of corn. Worshipped by Indians as rain god.

CHINKULTIC, Dept. Comitán. Finca El Rincón on shore of Lake Tepancuapan. Large ruins, 8 carved stelae. Seler, E., 1901, pp. 187-88; 1905, Vol. V., p. 563. TUX., pp. 429-435.

CHUCTIEPA, Dept. Palenque. Coffee Plantation. Group of ruins. TUX., pp. 214-217.

COLOLTE, Dept. Chilon, Ocosingo Valley. Pryamid with altar and stone idol. TUX., pp. 252-254.

COMITAN, Dept. Comitán. Stela. TUX., p. 247 ff.

COPANAGUASTE, Dept Comitán, by Socoltenango. Large group of ruins.

CRUSES, LAS, Dept. Comitán. Glazed clay jar. TUX., fig. 349.

ENCANTO, FINCA, Dept. Palenque. Mounds in field near main house.

ENCANTO, FINCA RUINS. Two carved tablets, mounds and terraces. Blom, 1924.

Francisco, San, Dept. Comitán. Two plain stelae. TUX., pp. 411-412.

Googh, Dept. Comitán. Hilltop on which are mounds.

Helena, Sta., Dept. Chilon. Mounds with stairways, cave, stone figures.

Horizonte. See Agua Escondida.

Hun Chabin, Dept. Comitán. Pyramid just outside town of Comitán. Mounds, stairway, pottery. Seler, 1901, p. 4; Seler, 1915, Vol. II., p. 227. TUX., pp. 415-418.

Huxumachital, Dept. Palenque, Finca Encanto. Mounds and ruined buildings. TUX., pp. 234-235.

Isabel, Santa, Dept. Comitán. Mounds.

Ixbui, Cerro, Dept. Comitán. Guatemala-Mexico boundary marker on top of hill. Sides of the hill are terraced and mounds stand on top.

Jabali, Paso Del, Dept. Chilon, on trail from Ocosingo to lumber camp Tzendales, 14 days ride from Ocosingo. Large group of ruins. Informant, Dr. Schmelling, Ocosingo.

Lucha, La, Dept. Chilon, Ocosingo Valley. Ranch, Urns, and skulls.

Muxculha, Dept. Palenque. Finca Encanto Ruins. TUX., pp. 223-234.

Nicolas, San, Dept. Las Casas, by Amatenango. Enchanted hill, i. e., mound.

Niguitic, Cerro, Dept. Comitán. Ruins on hilltop. Circular stone altar.

Nuestra Senora, Dept. Comitán. Ranch. Mounds with stairways.

Ocosingo, Dept. Chilon. Many monuments from Toniná scattered throughout town. See the following ruins which belong to Ocosingo Valley: San Antonio, Canpomtik, Chacalchib, Chamul, Cololté, Pamtelá, Pestac, Santa Teresa, San Tomás, Toniná, Ubalá.

Palenque, Dept. Palenque. Ruins. TUX., pp. 167-197.

Palmas, Las, Dept. Comitán. Flint spear head, TUX., fig. 350; limestone head, TUX., fig. 351.

Pamtela, Dept. Chilon, Ocosingo Valley. Circular altar from Toniná.

Pestac, Dept. Chilon, Ocosingo Valley. Stone monument from Toniná.

Pico De Oro, Dept. Chilon. Lumber camp. On the Guatemala side of the river running by the camp are ruins, and what appears to be a stela can be seen on the river botton. Informant, Dr. Schmelling, Ocosingo.

Pinola, Dept. Comitan. Caves with pottery.

Puente, El, Dept. Comitán. Ranch. See ruins, Tenám.

Retiro, El, Dept. Palenque. To the Southeast of Finca Iowa, temples and plazas. TUX., pp. 161-164.

Rincon, El, Dept. Comitán. See Chinkultik.

Sacchana, Dept. Comitán. Two Stelae found by E. Seler, 1901, pp. 17-18; C. Seler, 1900, pp. 158-159.

Saconeja, Dept. Chilon. See Agua Escondida.

Salvatierra, Dept. Libertad. Cave with skulls.

San toton, Dept. Chilon, by Finca San José Reforma, Ocosingo. Ruins and stela. TUX., pp. 308-311.

Sotuta, Dept. Libertad. Ruins. Carved stone box used as baptismal font.

Suchila, Dept. Chilon, Southeastern corner of Ocosingo Valley. Idol reported by priest in Ocosingo.

Tecoja, Dept. Chilon, Southeast of Ocosingo. Mounds enclosing plazas. TUX., p. 313.

Tenam, Dept. Comitán, by Finca El Puente. Large group of mounds on hilltop. Plain and carved stelae. TUX., pp. 423-428.

Teopisca, Dept. Las Casas. Cave. TUX., p. 410.

Tepancuapan, Dept. Comitán. Ranch. Mounds and many house sites. Visited by E. Seler, 1901, p. 188; 1915, Vol. II, p. 228.

Teresa, Santa, Dept. Chilon, Ocosingo Valley. Mound excavated by local treasure hunters. Seler, E., 1901, fig. 259. TUX., p. 255.

Tila, Dept. Palenque. Fragment of stela in house of priest.

Tomas, San, Dept. Chilon, Ocosingo Valley. Stone idol reported.

Tonina, Dept. Chilon, Ocosingo Valley. TUX., pp. 259-306.

Ubala, Dept. Chilon, Ocosingo Valley. Carved altar. TUX., pp. 250-251.

Valum Votan, by Teopisca. Visited by Brasseur de Bourbourg, 1861, Popol Vuh, p. LXXXVIII, Note 3.

Valunhuizthi, by Teopisca. Ruins reported.

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Yoxiha, Dept. Palenque. Finca Encanto. Mounds enclosing plazas. Plain stelae, pottery. TUX., pp. 221-227-233.

Zapaluta, Dept. Comitán. Pottery found near town. E. Seler, 1901, p. 188.

Zona Sala, Dept. Palenque, 8 kilometers Southeast of Palenque Village. Abandoned oil camp. Pottery figurine and vase found in grave. Walls and mounds on hilltops. TUX., pp. 199-200.

Appendix VIII

BIBLIOGRAPHICAL DATA RELATING TO NEWSPAPERS IN THE STATE OF CHIAPAS, MEXICO

The greater part of the following data was collected in the towns of Ocosingo, San Cristóbal las Casas, and Comitan. The Biblioteca Paniagua in San Cristóbal has a large collection of old Chiapas newspapers, but two volumes presented to the Department of Middle American Research by Don Ernesto Pinto in Comitan also contain numbers of rare papers.

The index is arranged according to towns in which the papers are printed. Whenever dates are given, these are of the numbers actually seen. In most cases it was not possible to get exact information as to how long the papers had been in existence.

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Appendix IX

BAROMETER ALTITUDES

Altitudes Over Sea Level

All readings were taken with a French Aneroid barometer compensated for temperature, and reading to 5000 metres. The barometer was checked in Mexico City, and check readings were taken in Puerto Mexico, Ver., and in Zona Sala Oil Camp, Chis.

The readings have been checked with I. Friedlaender: Vulkangebiet von San Martin Tuxtla, Ver., in Zeitschrift für Vulkanologie, Band VII, Heft 3, Nov. 1923, (F.); E. Boese: Reseña acerca de la Geologia de Chiapas y Tabasco, in Boletin del Instituto Geologica de Mexica, Numero 20, 1905, (B.); who also uses some data from Karl Sapper, (S.) C. M. T. P. stands for readings taken by Cia. Mex. de Terrenos y Petroleo, who have taken observations over a series of years, and who kindly furnished us with some data.

MEXICO

State of Veracruz:

San Andres Tuxtla, Canton Tuxtla	(F)	365 m.
Cerro de Santiago, Volcano	(F)	1200 m.
Catemaco, Town		360 m.
Mata Canela, Coffee Finca		540 m.
Cuezalapa, Ranch		350 m.
Cumbre de Bastonal		1060 m.
Arroyo Verde, Settlement		950 m.
Ocozotepec		705 m.
Soteapa		475 m.
Tatahuicapa		160 m.
Piedra Labrada		50 m.
Pass by Encino Amarillo		600 m.

Puerto Mexico. Barograph at offices of Cia. Mex. de Petroleo "El Aguila" Ver., Barometer checked.

State of Tabasco:

Frontera. C. M. T. P. office has made careful observations on various stations in the State of Tabasco.

STATE OF CHIAPAS:

Salto de Agua (La Cruzada)	(C. M. T. P.)	73 m.
Retiro, El, Ruins		200 m.
Palenque Village	(C. M. T. P.)	115 m.
Palenque Ruins		205 m.
Michol River, by Palenque Ruins		120 m.
Zona Sala Oil Camp	(C. M. T. P.)	254 m.
Xupa Pass		425 m.
Bascan River Camp		470 m.
Mirador		630 m.
Encanto, Finca		160 m.
Viena, Finca		150 m.
Chuctiepá, Finca		210 m.
Huxumachitál, Ruins		280 m.
Cacateël, Coffee Finca		320 m.
Bolontishná River		625 m.
Bacun Valley, Southern Rim		1155 m.
Bachajon		920 m.
Ocosingo		905 m.
Toniná Ruins		920 m.
San José Reforma Pass		1450 m.
San José Reforma Finca		610 m.
Real, El, Finca		580 m.
Tecojá		540 m.
Florida, La, Settlement		525 m.
Agua Escondida, Ruins		570 m.
Zapote, Pass between El Real and San Antonio		1180 m.
San Antonio		900 m.
Cololté, Hill with Pyramid		1150 m.
Chacalchib		1140 m.
Canpomtik		1155 m.
Sivacá		960 m.
Pass between Sivacá and Tenango		1620 m.
Tenango		1300 m.
Cancuc		1440 m.
Highest Point of Trail between Cancuc and Tenajapa		2100 m.
Tenejapa		2020 m.
Chamula Villages		2140 m.
San Cristóbal Las Casas		2110 m.
Highest Point on Trail between San Cristóbal and Teopisca		2450 m.
Teopisca Village		1800 m.
Amatenango Village		1820 m.
San Francisco Finca		2000 m.

Comitan Town		1630 m.
Hun Chabin Ruins		1840 m.
Puente, El, Finca		1615 m.
Tenam, Ruins		1655 m.
Zapaluta, Village		1535 m.
Huncaná, Finca		1520 m.
Rincón, El, Finca		1510 m.
Sacchaná, Finca	(S)	1350 m.

GUATEMALA

Department of Huehuetenango:

Gracias á Dios, Ranch		1440 m.
Nentón, Town		900 m.
San Andrés, Village		1320 m.
San Marcos, Village		1490 m.
Rio Azul		1240 m.
Jacaltenango, Village		1500 m.
Concepción, Village		2240 m.
San Martín, Village		1950 m.
Todos Santos, Village		2550 m.
Paso Vientoso		3420 m.
Chiantla, Town		1990 m.
Huehuetenango, Capital of Department		1910 m.

Appendix X

CONVERSION TABLE OF METRIC SYSTEM TO ENGLISH SYSTEM

METRES	FEET
1	3.28
2	6.56
3	9.84
4	13.12
5	16.40
6	19.69
7	22.97
8	26.25
9	29.53
10	32.81
11	36.09
12	39.37
13	42.65
14	45.93
15	49.21
16	52.49
17	55.78
18	59.06
19	62.34
20	65.62
21	68.90
22	72.18
23	75.46
24	78.74
25	82.02
26	85.30
27	88.58
28	91.87
29	95.15
30	98.43
31	101.71
32	104.99
33	108.27
34	111.55
35	114.83
36	118.11
37	121.39
38	124.67
39	127.96
40	131.24
41	134.52
42	137.80
43	141.08
44	144.36
45	147.64
46	150.92
47	154.20
48	157.48
49	160.76
50	164.04
60	196.85
70	229.66
80	262.47
90	295.28
100	328.09
200	656.18
300	984.27
400	1312.36
500	1640.45
600	1968.54
700	2296.63
800	2624.72
900	2952.81
1000	3280.90

KILOMETRES	ENGLISH STATUTE MILES
1	0.62
2	1.24
3	1.86
4	2.49
5	3.11
6	3.73
7	4.35
8	4.97
9	5.59
10	6.21
20	12.43
30	18.64
40	24.86
50	31.07
60	37.28
70	43.50
80	49.71
90	55.92
100	62.14
200	124.28
300	186.42
400	248.55
500	310.69
600	372.83
700	434.97
800	497.11
900	559.24
1000	621.38

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INTRODUCTORY NOTE

The bibliography concerns itself merely with works consulted or referred to in this report, it is not in any sense intended to cover the field. Reference is always given to the edition of any book actually used, without trying to give a complete list of the editions through which the work may have passed. Particularly is this true in the case of earlier sources and manuscripts which have been more recently re-published.

ABBREVIATIONS

The following are the principal abbreviations used:

Am., American.

Am. Geog. Soc., American Geographical Society.

Am. Philos. Soc., American Philosophical Society.

Anniv. Vol., Anniversary Volume.

Anth., Anthropology.

Arch. Inst. Am., Archaeological Institute of America.

Bol., Boletin.

Bull., Bulletin.

Bur. Am. Ethn., Bull. and Ann. Rep., Bureau of American Ethnology, Bulletin and Annual Report.

Cong. Int. Am. —— *Sess.*, Congrés Internationale des Américanistes, ——ième Session.

Ethn., Ethnology.

Field Columb. Mus., Anth. Ser., Field Columbian Museum, Anthropological Series.

Ges. Abhandl., Gesammelte Abhandlungen.

Harvard Univ., Pea. Mus. Pap. and Mem., Harvard University, Peabody Museum, Papers and Memoirs.

Inst., Institute.

Int. Journ. Am. Ling., International Journal of American Linguistics.

Journ., Journal.

Köng., Königlich.

Lib. Aborig. Am. Lit., Library of Aboriginal American Literature.

Mus., Museum.

Mus. Am. Ind., Heye Found., Contrib., Museum of the American Indian, Heye Foundation, Contributions.

Mus. Nac. Mex., Museo Nacional de Mexico.

Proc., Proceedings.

Sess., Session.

Smiths. Inst., Smithsonian Institute.

Soc., Society.

Soc. Mex. Geog. Estad., Sociedad Mexicana de Geografía y Estadistica.

Univ. Penn., Pub., Ser. Philol., Lit. Arch., Bull. Free. Mus. Sci. Art, and Anth. Pub., University of Pennsylvania, Publications, Series in Philology, Literature and Archaeology, Bulletin of the Free Museum of Science and Art, and Anthropological Publications.

U. S. Nat. Mus., United States National Museum.

Zeits., Zeitschrift.

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EKTACHROME BY ROBERT S. OAKES © N.G.S.

Grotesque gnome, a clay figurine 3½ inches tall, demonstrates the art of a nameless people in Costa Rica about A.D. 100 (pages 144-5).

Delicately wrought gold pendants, probably made by the ancients for burial with the dead, represent eagles, frogs, iguanas, and lobsters as well as man-animal deities. Aboriginal goldwork flourished in Costa Rica, as its name, Rich Coast, implies. The Central Bank of Costa Rica in San José houses this treasured collection.